

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
NORTHEASTERN REGION
AGRICULTURAL RESEARCH CENTER
BELTSVILLE, MARYLAND 20705

NOTES FROM THE DIRECTOR

No. 85

January 31, 1977

SAFETY

We wish to share with you the following memo which J. L. Hilton, Chairman of the Agricultural Environmental Quality Institute, sent to his Institute personnel concerning cooperation with AEQI safety officers:

"Since the beginning of scientific investigations, researchers have gambled with their health and suffered from the unknown hazards associated with the objects of their curiosity. Thanks to the knowledge and practices of modern science these hazards can be avoided and accidents can be prevented.

"Your personal safety in research investigations is simple: good housekeeping, common sense, and advance precautions to deal with accidents. You must be your own safety officer. Our safety organization exists to help spot those items you may be overlooking. Its importance is emphasized by the fact that the Region and Center have full-time safety officers, the Institute has a part-time safety officer, and each laboratory has a safety representative. Outside organizations conduct inspections of our facilities and have authority to close us down for safety violations.

"Our Institute safety officer is a full-time research scientist who is willing to volunteer much of his research time for the benefit of the rest of us. The magnitude of his job is described in the attached guidelines. He must delegate portions of these duties to laboratory safety representatives. These people are your friends and should be so treated. You will probably get to replace one of them at some future date. You are requested to continue to cooperate fully with our safety representatives as all of you have been doing.

"I am extremely grateful for the response I have received from AEQI personnel during some recent safety related crises and the others who have responded to prevent similar crises from occurring elsewhere. I believe we have mastered most of our situation. However, we may expect repeated inspections of major proportion. I am depending on AEQI safety representatives to help us stay on top of our safety program. Anticipate hazards, keep laboratories uncluttered, and use good work practices.

"Thank you for the pleasant attitude with which you have extended outstanding cooperation in the recent past."

CHANGES IN COMMITTEE ASSIGNMENTS

BARC Tissue Culture Committee:

Toru Arisumi, Florist and Nursery Crops Laboratory, PGGI, has replaced J. B. Powell, who rotated from the committee.

BARC REPRESENTATIVE TO THE ASSOCIATION OF SYSTEMATICS COLLECTIONS FOR 1977

Lekh Batra was chosen by the plant and animal systematists as the BARC representative to the Association of Systematics Collections for 1977. J. Ralph Lichtenfels, Index-Catalogue of Medical & Veterinary Zoology, API, is the designated alternate representative.

5TH INTERNATIONAL CONGRESS OF ACAROLOGY

Edward W. Baker, Systematic Entomology Laboratory, IIBIII, has been elected President of the 5th International Congress of Acarology to be held in August 1978 at Michigan State University, East Lansing. Previous meetings have been held once in the U.S. and three times in Europe. All aspects of the study of mites will be covered during the Congress.

HONORS AND AWARDS

Walter J. Rawls, Research Hydrologist in the Hydrograph Laboratory, PPHI, recently received the Robert E. Horton Award for the best hydrology paper published in 1975. The paper, "Use of Axisymmetric Infiltration Model and Field Data to Determine Hydraulic Properties of Soils," by Roland W. Jeppson, Walter J. Rawls, W. Russell Hamon, and David L. Schreiber, was published in the February 1975 issue of Water Resources Research, Volume 11, No. 1. This research was conducted when Dr. Rawls was at the ARS Northwest Watershed Research Center, Boise, Idaho.

Cash Awards:

Virginia C. Morris, Vitamin and Mineral Nutrition Laboratory, NI, for performance of duties involving an operating procedure which allowed increased scientific productivity in the Laboratory.

Herman H. Smith, Animal Operations (Dairy) Unit, Director's Office, for suggestion regarding milking parlor sanitation practices.

Beatrice C. Robbins, Protein Nutrition Laboratory, NI, for a high level of performance of duties.

Alvah L. Singleton, Utilities and Services Branch, DOBA, for sustained superior performance as Guard Supervisor.

EMPLOYEE ACTIVITIES

Stanley A. Ostazeski, Field Crops Laboratory, PGGI, recently completed a 2½-month consultation on alfalfa diseases for the FAO-INTA Alfalfa Project, Anguil, Argentina. Productivity and longevity of alfalfa stands have been steadily declining in recent years. Much of the decline has been attributed to parasitic diseases. In surveys of some of the more important alfalfa production areas of the humid and subhumid zones, Dr. Ostazeski found that anthracnose, caused by Colletotrichum trifolii, was one of the more important diseases. He and his counterparts found that the organism commonly overwinters on stubble or crowns of infected plants. Using Argentine isolates of the fungus inoculated onto U.S. varieties of alfalfa, they concluded that the organism is probably the same in both the Northern and Southern Hemispheres. Dr. Ostazeski successfully supervised the initiation and completion of the first cycle of a phenotypic recurrent selection program for anthracnose resistance in Argentine alfalfas. Adapted varieties, with anthracnose resistance, should contribute significantly to alfalfa production and stand longevity in the humid and subhumid zones of Argentina.

Robert Gordon, Systematic Entomology Laboratory, IIBIII, and Dr. Dieter Wasshausen, Chairman of the Botany Department, Smithsonian Institution, were in Peru during the months of September and October 1976. The primary purpose of the trip was to collect data on the biologies of members of the Epilachninae (plant feeding beetles, Coccinellidae), with particular emphasis on identifying host plants. Most of the time was spent at San Francisco de Apurimac, Department of Apurimac, and Quincemil, Department of Cuzco. Both areas are in eastern Peru and are high, wet jungle, with a sizeable fauna of Epilachninae. The presence of a botanist with the expedition made an ideal association by providing expertise in collecting, preserving, and identifying host plants. Future trips are planned to these same areas to search for biological control agents effective against the Mexican bean beetle (Epilachna varivestis Mulsant), a pest of soybeans in the United States. The information and experience acquired on the Gordon-Wasshausen expedition will expedite matters for future research.

Several scientists from the Systematic Entomology Laboratory, IIBIII, attended the Annual Meeting of the Entomological Society of America, in Honolulu, Hawaii, November 28 through December 2. Douglass R. Miller organized and moderated a workshop on the identification of scale insects and presented a paper at that workshop on the family Eriococcidae. Manya Stoetzel presented a paper at this workshop on the biology of armored-scale insects. She also presented a paper on immature armored-scale insects at the Immature Insects Conference. Willis W. Wirth gave a talk with F. C. Haworth on Forcipomyia ingrami in Hawaii. In addition to the scheduled meetings, many valuable contacts were made with other colleagues and there was time for some field work and visits to the extensive collections at the Bishop Museum.

EMPLOYEE ACTIVITIES (Continued)

Charles S. Helling, Pesticide Degradation Laboratory, AEQI, served as consultant to the Joint FAO/IAEA Division of Atomic Energy in Food and Agriculture, Vienna, Austria, during the period November through December 3, 1976. The following week he reviewed three PL-480 projects in India and presented seminars at Punjab Agricultural University and Kalyani University.

R. S. Isenstein, Non-Ruminant Helminthic Diseases Laboratory, API, was invited to participate in the review of the trichinosis detection program at the Los Alamos Scientific Laboratory, Los Alamos, New Mexico, December 7 and 8, 1976.

Michael F. Combs, Visitor Unit, presented a paper at the 36th Annual Conference of the South Carolina Association of Conservation Districts, held in Columbia, South Carolina, December 8 and 9, 1976. Mr. Combs spoke on World Food Problems and how our research at Beltsville helps solve these problems.

N. P. Wong, Dairy Foods Nutrition Laboratory (DFNL), NI, served as a panel member on the "Home Show of Kaleidoscope," on WAMU-FM, American University, on December 8, 1976. Other panelists were J. W. Smith, Chairman, APGI, and Dr. David Paige, Johns Hopkins University. The 1½-hour program was devoted to various aspects of milk. There was discussion among panelists and questions from the audience particularly on lactose intolerance, beneficial effects of fermented milks, and acidophilus milk. Dr. Paige expressed interest in current research at DFNL involving rat feeding of fermented milks.

Charles Sloger, Cell Culture and Nitrogen Fixation Laboratory, PPHI, presented a seminar entitled "Biological Nitrogen Fixation in Soybeans and Corn," on January 7, 1977, at the Eastern Regional Research Center (ERRC), Wyndmoor, Pennsylvania. Dr. Sloger visited with Dr. Virginia O'Leary and other interested scientists at ERRC to explore possible cooperative research areas of mutual interest in nitrogen fixation.

J. W. Goble, Poultry Marketing Specialist in the Animal Products Marketing Laboratory, AMRI, received the Ph. D. degree from the University of Maryland in graduation ceremonies held December 17, 1976. His major was Agricultural and Extension Education with a minor in Agricultural Marketing.

CONTRIBUTIONS TO CHILDREN'S HOSPITAL

A gift in the amount of \$832.85 was forwarded to Children's Hospital a few days before Christmas, which represented the BARC, NERAQ, and NPS "in lieu of Christmas cards to coworkers" remembrance.

NOTICE OF RELEASE TO SEED PRODUCERS OF THE MACHINE-HARVESTABLE TOMATO
VARIETY - WAKEFIELD

The Plant Genetics and Germplasm Institute, Agricultural Research Center, Beltsville, Maryland, announces the release of the tomato variety "Wakefield." Wakefield is an early maturing, productive, small-vined, small-fruited, jointless pedicel, crack-resistant variety that is resistant to gray leaf spot, Fusarium and Verticillium wilts, harvestable by machine, and has good processing quality. "Wakefield" was developed by Alan K. Stoner and Thomas H. Barksdale.

WORKSHOP

More than 30 ARS scientists met at Beltsville on January 11 and 12 for an ARS workshop on "Environmental Aspects of Pesticide Research." The workshop was organized by J. Lunin (NPS), with the assistance of A. W. Taylor and P. C. Kearney (AEQI), who are the technical advisors for research on pollution problems of pesticides. The group reviewed and identified objectives, progress, and future direction of the National Program on Behavior of Pesticides in the Environment.

PUTTING RESEARCH TO WORK

Results of systematics research on the plant feeding spider mites of Mexico, have been completed and will be published in January 1977. "The Spider Mites of Mexico," by D. M. Tuttle, E. W. Baker (Systematic Entomology Laboratory, IIBIII), and M. J. Abbatiello, includes detailed systematic treatment of 28 genera and 143 species, and described one new genus and 26 new species. Keys to the genera and species are given, and all species are illustrated. Many of the mites treated in this study are of considerable importance to major agricultural crops in Mexico, and the World.

VISITORS

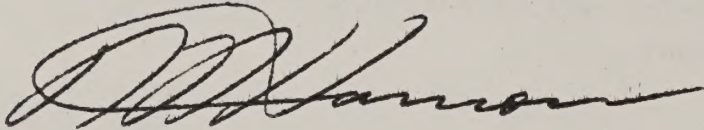
Australia--Dr. Ian Beveridge, University of Melbourne, Victoria, Australia, visited the Animal Parasitology Institute December 13 through 15. He discussed nematode systematics with J. Ralph Lichtenfels and arranged for the exchange of specimens and literature.

India--On December 24, 1976, Dr. Hari Kishore, Head of the Department of Genetics and Plant Breeding, Central Potato Institute, Simla, India, visited with Raymon E. Webb, Vegetable Laboratory, PGGI, to discuss recent advances in potato research programs.

VISITORS (Continued)

Italy--Antonio U. Troni, U.S. Representative of the Italian Federation of Farmers Cooperatives, visited with A. A. Hanson on January 14, 1977. He was interested in discussing the scope of the Center's research program, and in identifying contacts within the Agency.

France--A group of breeders, geneticists, and seed production agronomists from Limagrain, France, spent a day at the Seed Research Laboratory, AMRI, learning about criteria for determining marketing quality of seeds, techniques for producing high quality seeds, and methods for handling and storing seeds for maintenance of quality. Limagrain is the largest agricultural cooperative in France. It produces over 1 million bushels of field corn seed annually for corn growers in many European countries. The group also paid a visit to the National Seed Testing and Standardization Laboratory, AMS, at Beltsville.

A handwritten signature in dark ink, appearing to read 'A. A. Hanson', with a stylized, flowing script.

A. A. Hanson, Director
Beltsville Agricultural Research Center

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NOTES FROM THE DIRECTOR

No. 86

February 25, 1977

SAFETY

Knowing where to find information and guidelines is an important part of safety. Safety Libraries at BARC are maintained at the following locations:

AEQI - Basement Headhouse 1, Building 050
AMRI - Room 130, Building 003
API - Building 1045
APGI - Room 28, Building 262
IIBIII - Building 417
NI - Room 220, Building 308
PGGI - Room 130, Building 001
PPHI - Room 221, Building 001
PPI - Room 162, Building 011-A
Division of Operations - Building 426
Office of Director - Room 32, Building 007
Animal Operations Unit - Room 102, Building 161
AMS, Grain Division - Room 209, Building 306
CFEI - Room 330, Building 307
HEW, F&D, Veterinary Research - Second Floor, Building 339
NPS - Room 102, Building 005
EPA - Chem. & Bio. Inv. Branch - Building 402

NEW EMPLOYEE

The Seed Research Laboratory, AMRI, welcomes William VanDerWoude, who will be using his expertise in membrane physiology to strengthen our research programs on dormancy, germination, vigor, and deterioration in seeds. Dr. VanDerWoude received his Ph. D. in plant and cell physiology from Purdue University in 1972. Following graduation, he accepted an appointment with the University of California, Riverside campus, as an Assistant Professor in Biology. Bill, his wife Gladys, and their two children will be living in their new home in Calverton.

VISITING SCIENTIST

Maria Elena Graf, of the Cell Biology and Genetics Department of the University of Chile, is spending 5 months in the Plant Virology Laboratory, PPI. Miss Graf is a Foreign Research Associate working in a cooperative effort on sugarbeet yellow wilt disease agent and other mycoplasmas and spiroplasmas.

HONORS AND AWARDS

T. C. Tso, Chief, Tobacco Laboratory, PGGI, was elected a Fellow of the American Society of Agronomy.

Paul H. Terry, Insect Chemosterilants Laboratory, AEQI, has been named Toastmaster of the Year for 1976 by the ARC Toastmasters Club 3039. This is the second year in a row that he has received this award. During 1976, Dr. Terry served as the Educational Vice President, brought 35 guests to meetings and 11 new members into the club, started a club library, and made a bulletin board with money provided by ARCEA, led a five-part Listening to Learn program, and participated in the area speech contest as a club winner.

BACER TERRESTRIAL WORKSHOP

A BACER Terrestrial Workshop was held at BARC on February 9 and 10 to share information and methodology, and to develop an acceptable protocol for growth chamber, greenhouse, and field experiments. Attendees represented the National Bureau of Standards; Smithsonian Institution; National Oceanic and Atmospheric Administration; NASA, Johnson Space Control Center; Environmental Protection Agency; Northern Regional Research Center; Jornada Experimental Range; National Animal Disease Center; and three universities. Seven BARC laboratories and four members of the National Program Staff participated.

MEETING ON CHEMOSTERILIZATION OF THE BOLL WEEVIL

A meeting on Chemosterilization of the Boll Weevil was held at BARC on February 8 to consider the new chemosterilization technique combining dipping and fumigation developed at BARC, and to develop a work schedule through March 1978. The Insect Chemosterilants Laboratory, AEQI, and the Biological Evaluation of Chemicals Laboratory, AEQI, are cooperating with the Boll Weevil Research Laboratory.

BARC SYMPOSIUM II

The Beltsville Symposium II, Biosystematics in Agriculture, will be held May 8-11, 1977. The Symposium will focus on the biosystematics of insects, nematodes, animal parasites, fungi, and higher plants. All approaches to biosystematics--including classical, theoretical, experimental, operational, basic and applied--will be discussed. We hope that the Symposium will stimulate the development of classification systems of maximum utility and predictability for agricultural science and will make the agricultural research community more aware of the actual and potential benefits of biosystematic research.

EXCESS MATERIALS

See attachment.

EMPLOYEE ACTIVITIES

R. W. Yaklich and M. M. Kulik, Seed Research Laboratory, AMRI, were invited to speak at the Southeastern Pennsylvania Corn and Soybean Clinic, held at Norristown, Pa., on February 1 and 2. Dr. Yaklich spoke to the group on measuring vigor in seeds of soybean and corn and Dr. Kulik spoke on seed-borne diseases of soybeans.

Robert L. Smiley, Systematic Entomology Laboratory, IIBIII, visited the Rijksmuseum of Natural History at Leiden, The Netherlands, January 3-8, and the Instituto Sperimentale Per La Zoologia Agraria, Florence, Italy, January 10-22, to study predaceous mite type specimens that cannot be entrusted to the mails. The results of these studies will enable Mr. Smiley to complete his systematic research on the mite family Cunaxidae. This research will be important to scientists conducting research in biological control and ecology. The Istituto Sperimentale Per La Zoologia Agraria celebrated its centennial (1875-1975) and moved into a new research complex. Mr. Smiley has the distinction and honor of being among the first acarologists to study at these new facilities.

M. M. Kulik, Seed Research Laboratory, AMRI, presented a talk on "Soybean Research in the Seed Research Laboratory," at the Middle Atlantic Soybean Research Workers' Conference, held at BARC on February 16 and 17.

R. H. Miller, Genetics and Management Laboratory, APGI, was reelected Secretary of the American Genetic Association, at the annual meeting January 16.

H. E. Heggstad, Plant Stress Laboratory, PPHI, was an invited participant in a Symposium, "Air Pollution and Its Impact on Agriculture," on January 13 and 14, at California State College-Stanislaus, Turlock, California. On January 18, he presented a seminar on effects of air pollutants on cotton at the U. S. Cotton Research Station, Shafter, California. On February 10, he discussed the effects of air pollutants on dahlias and other ornamentals at a meeting of the National Capital Dahlia Society.

Sheldon Reiser, Carbohydrate Nutrition Laboratory, NI, recently completed a 2-week trip to Great Britain and Israel. The primary purpose of the trip was to evaluate progress on the United States-Israel Binational Science Foundation Grant, "The Interaction of High Sucrose Intake and Genetics on Generation of Diabetes and Its Vascular Complications in Man." Dr. Reiser is the U. S. representative on this grant. The basis of the research project is to determine the contribution of diet on the increasing incidence of diabetes in Yemenite Jews after acculturation in Israel. Much of the time was spent in the Yemenite villages where these studies are still in progress. Preliminary data from two of the six villages to be tested indicate that in Yemenites with a genetic susceptibility toward diabetes, those that demonstrated

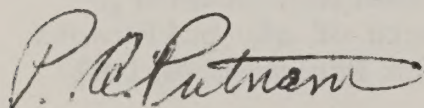
overt symptoms of this disease were consuming significantly greater quantities of monosaccharides and disaccharides than nonaffected individuals. There were no significant differences in the intake of fat or protein between Yemenites with diabetes and those who showed no symptoms of the disease.

VISITORS

Italy--On January 28, 1977, William Moats, Animal Products Marketing Laboratory, AMRI, was visited by Dr. Roberto Ligugnana, Pool Bioanalysis Italia, representing the Italian Society of Applied Microbiology, to discuss development of bacteriological standards for fluid milk in Italy.

New Zealand and Germany--Dr. Whittlestone of the Ruakura Animal Research Station, Hamilton, New Zealand, and Dr. G. Wehowsky of Karl-Marx University, Leipzig, German Democratic Republic, visited the Genetics and Management Laboratory, APGI, during the week of January 17-21. Dr. Whittlestone is interested in the physiology of lactation, bovine mastitis, and animal behavior; and Dr. Wehowsky's interests are in basic design improvements in the milking machine cluster and in automation of the milking process. In addition to informal visits with Beltsville scientists, Drs. Whittlestone and Wehowsky presented a seminar program and toured both BARC and the surrounding area.

Algiers--Dr. Kedad, Department of Agriculture, Biology and Plant Care, National Institute of Agronomy, Algiers, accompanied by Mrs. Slack, State Department, visited BARC, on February 1, "To establish personal and institutional links with American colleagues and institutions of agronomy and plant pathology." The Ministry of Education expects to send 10 heads of departments to the United States in the next 2 years. Dr. Kedad visited Dr. Endo and Dr. Moseman. Major portions of his time were also spent with Drs. Barksdale, Rebois, Steers, and R. Webb.



P. A. Putnam, Assistant Director
Beltsville Agricultural Research Center

Enclosure

EXCESS MATERIALS

The items listed below are in good condition and are available excess property at the Agricultural Equipment Laboratory, PPHI:

<u>Item</u>	<u>Quantity</u>	<u>Inventory</u>	<u>Ext.</u>
Electronic Calculator - Wang Model 320 K - 1967	1	Yes	42237
Camera - XL Graphic 3-1/4 x 4-1/4 with various lens	1	Yes	42237
Camera - B&H 16 mm. Camera Magazine Load, U.S. Army Signal Corps Type	1	Yes	42237
Nuclear Instruments and Accessories (possibly useable)			
Includes - Lead Radiation Shield	2	Yes	42237
Surface Barrier Detector	2	Yes	42237
Counter Scintillation	1	Yes	42237
Amplifier Module Bin Type	1	Yes	42237
Timer Scaler	1	Yes	42237

The following items are available excess property at the Insects
Chemosterilants Laboratory, AEQI:

<u>Item</u>	<u>Quantity</u>	<u>Inventory</u>	<u>Ext.</u>
Metaphosphoric Acid (in bottles)	54 x 1 lb.	No	42140
Boric Acid (in bottles)	200 x 1 lb.	No	42140
Incubator, Freas (minor repair needed)	1	Yes	42017

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NOTES FROM THE DIRECTOR

No. 87

March 30, 1977

The Director's Office would like to share with you the following letter from Alfred B. Lawson, Jr., Director of Development, Children's Hospital National Medical Center:

"We are pleased...and very grateful for your generous contribution to Children's Hospital National Medical Center in the amount of \$832.85.

"Next year this time we will be in our new Hospital, now nearing completion. Our goals are to provide new and even better services for the many young patients who come through our doors every day. Continuing gifts are therefore very important.

"Again, although we feel the words inadequate to express what we really feel, 'thank you' on behalf of all those who will benefit from your philanthropy."

NEW EMPLOYEES

On Friday morning, March 11, the Animal Operations Unit conducted an open house in the Building 177B Conference Room to welcome Ben Stroud, the new veterinarian at BARC. Dr. Stroud received his D.V.M. degree from Auburn University in 1969. Since then, he has practiced large animal medicine in Pennsylvania, New York, Kentucky, and Virginia. Dr. Stroud's experience and training in the field of large animal medicine will provide BARC's Veterinary Services Unit with the expertise desired to maintain the health of our research herds and flocks, and to provide critical support to our research animal scientists. Dr. Stroud and his family will reside in Building 281. His office is located in Building 177, X42081.

The Soilborne Diseases Laboratory, PPI, welcomes Nichole R. O'Neill, who joined the Laboratory for about a year. She will use her expertise in plant pathology and plant biochemistry to study upward and downward translocation of effective systemic fungicides in plants emerging from treated seeds, as well as fungicide accumulation in seed cotyledons. Dr. O'Neill received her Ph. D. in plant pathology from Louisiana State University in 1976. She will return to Louisiana when her husband finishes his assignment with FEA in Washington.

CONGRATULATIONS--T&A CLERKS

According to recent figures compiled by the NFC, 27.7% of ARS' Time and Attendance Reports are rejected during NFC computer processing as compared to an overall USDA rate of 35.2%. We encourage you to continue to strive to improve, since timeliness of employees' pay check delivery can be affected by the accuracy and completeness of the T&A Reports.

EMPLOYEE ACTIVITIES

R. E. Hardenburg, Chief, Horticultural Crops Marketing Laboratory, AMRI, spent the week of March 14-18 participating in a CSRS Review of the teaching, research, and extension programs of the Vegetable Crops Department (Ithaca) and the Seed and Vegetable Science Department (Geneva), New York. Both are part of the New York State College of Agriculture and Life Sciences of Cornell University.

A. J. Oakes' presentation entitled, "Plant Introductions in Range Management," was well received by attendees of the Annual Meeting of the Society for Range Management, in Portland, Oregon, on February 17. Dr. Oakes illustrated the relationships of plant introduction to the plant materials work of the Soil Conservation Service, other Federal agencies, and State experiment stations. He also described how the National Plant Germplasm System functions, and gave emphasis to the improvement of our rangelands through plants introduced from other countries.

HONORS AND AWARDS

P. L. Breakiron, Chief, Transportation and Packaging Research Laboratory, AMRI, has been appointed Department representative on the Transportation Sanitation Advisory Committee. The committee has been set up under a cooperative industry-Government program involving efforts of the Department and the Food and Drug Administration to help prevent contamination of food and feed products with residues of toxic substances remaining in transport vehicles from previous shipments. Mr. Breakiron also has been appointed to the Physical Distribution Standards Management Board of the American National Standards Institute. The board reviews, evaluates, and coordinates the standards development work of 15 standards development committees of the Institute concerned with physical distribution, transportation, and refrigeration.

J. Ralph Lichtenfels, Parasite Classification and Distribution Unit, API, has been appointed Chairman of the Nomenclature and Terminology Committee of the American Society of Parasitologists. This standing committee has responsibility for Society activities in the field of systematics.

An old custom, publication of a "Festschrift," was revived by the Entomological Society of Washington (ESW), with publication of the January 1977 issue of the ESW Proceedings in honor of Dr. Alan Stone's 73rd birthday. Dr. Stone, one of the world's leading Diptera (fly) taxonomists, is retired from the Systematic Entomology Laboratory, IIBIII, after 40 years of outstanding service. The special issue of the Proceedings includes 23 papers on Diptera by Dr. Stone's colleagues throughout the world.

Cash Award

Charles Harding, Biologically Active Natural Products Laboratory, AEQI, for expediting the research of a high-priority program to isolate a natural plant growth promoter in the Plant Hormone and Regulators Laboratory.

PUTTING RESEARCH TO WORK

SPARTAN--A New Blueberry Release--Plants of SPARTAN are vigorous and upright and open in growth habit, well adapted to machine harvesting, and productive. The fruit is firm, light blue, large, and has very good flavor. It is an early variety, ripening with the Collins variety and a few days after Earliblue. It is partially resistant to both phases of mummy berry disease, Monilina vaccinii-corymbosi, which attacks shoots and fruit. It cannot be recommended in areas subject to cane canker caused by Botryosphaeria corticis because it is not resistant.

Whey Blocks Going Commercial--It appears that cattle are finally going to get a chance to help solve the whey disposal problem for the cheese industry. Although "Lick Blocks" from whey were developed and first publicized by the Dairy Food Nutrition Laboratory (DFNL), in 1974, large-scale use of the process has been slow to develop. Now that is about to change! Don Rollins, D.V.M., from Mid-America Dairymen, Inc., visited with Frank McDonough, DFNL, and Paul Lynch, Ruminant Nutrition Laboratory, (Paul did the feeding studies with the blocks) to check out some details before taking the big step. Mid-America has just completed a 1-year study in which over 3,000 blocks were fed to dairy calves and lactating cows with excellent results. They are very enthusiastic about their results in terms of growth, animal health, feed-cost savings, etc. Beginning in April, Mid-America--whose producers have 70 million pounds' of whey to dispose of annually--plans to mass produce the blocks for return to their farmers' herds. With full productivity, Mid-America could produce 2 million blocks per year and, based on feeding trials, would have no trouble disposing of all of their whey in this manner.. Those cheese plants paying \$10,000 per month sewage surcharges will be happy to hear of this.

COOPERATIVE ACTIVITIES

Conserving Energy in Storage of Frozen Foods--In an attempt to find ways of reducing the electrical energy requirements and the cost of storing and distributing frozen foods, ARS has undertaken research in cooperation with the Refrigeration Research Foundation, the General Foods Corporation, the American Association of Frozen Food Packers, and the University of Maryland. The work is being done by the Transportation and Packaging Research Laboratory in cooperation with other researchers at the Richard B. Russell Agricultural Research Center at Athens, Georgia. It is being financed, in part, by the Refrigeration Research Foundation.

CONFERENCES AND SEMINARS

Sixth Eastern Research Conference on the Ecology of Root-Infecting Microorganisms--Ten years ago, the Soilborne Diseases Laboratory (SDL), PPI, organized the first Research Conference on the Ecology of Root-Infecting Microorganisms, which was held at the Center of Adult Education, University of Maryland. The Sixth Conference commemorating the 10th anniversary of these conferences, was again hosted by the SDL and held at the same location on March 15 and 16. This Conference focused on the effects of soil pesticides on root-infecting microorganisms; on survival of and pathogenesis by soilborne plant pathogens; and on methods for estimating losses due to soilborne microorganisms. A special feature of the Sixth Conference was a symposium on "Progress in Controlling Soilborne Diseases Over the Past 10 Years," chaired by G. C. Papavizas, SDL. R. J. Cook, USDA, ARS, Prosser, Washington, spoke on Biological Control; P. H. Williams, University of Wisconsin, spoke on Genetic Control; and A. W. Engelhard, University of Florida, spoke on Chemical Control. The Sixth Conference was organized by an executive committee composed of R. D. Lumsden, SDL; M. L. Lacy, Michigan State University; and G. J. Griffin, Virginia Polytechnic Institute and State University.

The Hydrograph Laboratory, PPHI, recently held a seminar on "Remote Sensing of Soil Moisture with Microwave Radiometers," at BARC. The speaker was Dr. Tom Schmugge, Physicist, Goddard Space Flight Center, Greenbelt. The seminar was organized for all people in the Washington area who are working in water resources, hydrology, and related sciences. Similar seminars are planned periodically so that we may learn of new research and get together to discuss items of mutual interest. Watch for future notices. If you have questions, please contact Ted Engman, on X43110.

VISITORS

Sudan--Dr. Mohamed Osman El Karouri, 1977 Eisenhower Fellow from Sudan visited the Small Grain Collection on March 15. J. C. Craddock, Jr., Germplasm Resources Laboratory, PGGI, explained the sources of the germplasm in the Collection and the way in which Dr. El Karouri might use the Small Grain Collection, and other seed collections in the world, to implement experiments in Sudan.

Colorado--Dr. Robert E. Stevens, Forest Service, Ft. Collins, Colorado, met with R. W. Hodges, Chief, Systematic Entomology Laboratory, IIBIII, on January 18 and 19, to work on the identity of two microlepidopterous moths that mine in pine needles. Each of the species is a potential pest--one on pinyon, the other on ponderosa pine--and each proved to be undescribed. A paper has been prepared describing them. Dr. Stevens has worked out the life history of both species.

Dr. Robert Wharton, a recent graduate of the University of California, spent 2 months at the Systematic Entomology Laboratory (SEL), IIBIII, working with the Laboratory's Tropical and Subtropical Fruit Fly Project. Dr. Wharton--aided by Paul M. Marsh of the SEL staff--completed a manuscript of an annotated, illustrated key for the approximately 50 New World species of braconid wasps that are known to parasitize tephritid fruit flies.

Israel--Dr. Menahem Zur, Head of the Division of Plant Introduction, Agricultural Research Organization, Bet-Dagan, Israel, completed a short tour of duty in the U.S. early in February. His main objectives were to review the plant introduction activities handled by the Germplasm Resources Laboratory (GRL), PGGI, and related plant quarantine activities. He was additionally concerned with cotton and sugarcane breeding. Briefing sessions at BARC involved Howard Hyland, George White, Joe Craddock, and other staff members of GRL, John Moseman, PGGI Chairman, Norman James, NPS, and Graves Gillaspie, Applied Plant Pathology Laboratory. Dr. Zur also toured the Glenn Dale Plant Quarantine Facility as well as the newly-established Plant Germplasm Quarantine Center, BARC-East. Following his Beltsville visit, appointments were kept with cotton breeders in California and Texas, sugarcane specialists in Canal Point, Florida, and the Regional Plant Introduction Station at Ames, Iowa.

Denmark--Mr. Arne Moller, Agri Contact, Denmark, visited BARC again this year on March 16-18. During his visit, he had discussion with the following scientists: W. H. Martinez, R. G. Yeck, D. L. Anderson, E. J. Warwick, and W. G. Lovely, NPS; T. D. Neis, PACS; R. R. Oltjen, Ruminant Nutrition Laboratory, and L. T. Frobish, Non-Ruminant Animal Nutrition Laboratory, NI; D. J. Bolt, Reproduction Laboratory, APGI; T. F. Webb, Animal Products Marketing Laboratory, and K. H. Norris, Instrumentation Research Laboratory, AMRI; and E. Epstein, Biological Waste Management and Soil Nitrogen Laboratory, AEQI.

Dairy Industry--A group of dairy industry people visited BARC on March 4. Producers, extension associations, and industry were represented in the group. They were welcomed by T. H. Blosser, who told them about the role of ARS in dairy research; M. J. Paape discussed mastitis investigations; and M. B. Hayden explained the solar energy project. The group also visited with C. A. Kiddy, H. F. Tyrrell, and R. L. Powell.

Transportation Industry--Recent visitors to the Transportation and Packaging Research Laboratory, AMRI, included: Mr. Julius B. Kuperschmitt, President, Containaire Systems, Inc., to discuss containerization of food products for transport; and Mr. Arthur Sargent, Naval Architect, to discuss the design and development of barges for transport of livestock to overseas markets on barge-carrying ships.

Phytopathology Researchers--Participants in a Phytopathology Workshop at the University of Maryland toured BARC on March 14. A. A. Hanson welcomed the group before they visited four Laboratories in Building 011A. W. R. Krul, Cell Culture and Nitrogen Fixation Laboratory; R. M. Sayre, Nematology Laboratory; J. A. Lewis, Soilborne Diseases Laboratory; and R. E. Davis, Plant Virology Laboratory discussed the research being conducted by their Laboratories. T. H. Barksdale and R. W. Goth, Vegetable Laboratory, demonstrated results of their research at Range 1.

Appreciation--The Visitor Unit staff wishes to express their appreciation for the continuing cooperation of personnel at BARC and on the NPS and PACS in scheduling visitors to the Center, assisting at school Science Fairs, and lecturing to school groups.

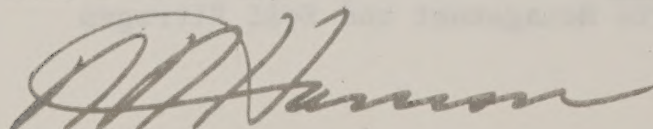
EXCESS MATERIALS

The item listed below is in good condition and available excess property at the Livestock Protozoan Diseases Laboratory, API:

<u>Item</u>	<u>Quantity</u>	<u>Inventory</u>	<u>Ext.</u>
Microdensitometer, Recording, Canalco	1	Yes	42427

The item below is in good condition and available excess property at the Agricultural Equipment Laboratory, PPHI:

<u>Item</u>	<u>Quantity</u>	<u>Inventory</u>	<u>Ext.</u>
Potentiometer Precision, Honeywell-Rubicon, Type 2773, Original Cost \$6,000, S/N 119721, Size 3' x 2' x 8"	1	Yes	42237



A. A. Hanson
Director, BARC

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
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AGRICULTURAL RESEARCH CENTER
BELTSVILLE, MARYLAND 20705

NOTES FROM THE DIRECTOR

No. 88

April 20, 1977

SECRETARY BOB BERGLAND VISITS BARC

Secretary Bob Bergland, Under Secretary John White, Assistant Secretary Carol Foreman, and Assistant Secretary Designate Rupert Cutler visited BARC employees on April 8 at a meeting jointly sponsored by the Beltsville Chapter of OPEDA and the Center Director's Office. Following the meeting they visited the energy metabolism facility, Ruminant Nutrition Laboratory, NI; the sludge composting site, Biological Waste Management and Soil Nitrogen Laboratory, AEQI; lunched on a lipid study diet at the Nutrition Institute kitchen; and visited the National Agricultural Library.

NEW LABORATORY CHIEFS

Michael D. Ruff was appointed Chief, Poultry Protozoan Diseases Laboratory, API, effective March 20, 1977. Dr. Ruff obtained his B.S., M.S., and Ph. D. degrees in zoology and parasitology from Kansas State University. After receiving his doctorate in 1968, he served for 3 years as parasitologist, U.S. Army Medical Laboratory, Camp Zampa, Japan. Following his discharge from the Army, Dr. Ruff was a postdoctoral fellow in biochemistry at Rice University in 1971-72 and, in 1973, received additional postdoctoral training in microbiology and parasitology at the University of Georgia. Since 1973, Dr. Ruff has been an Assistant Professor of Parasitology, Department of Poultry Science, University of Georgia, where he has directed training programs for M.S. and Ph. D. graduate students in addition to conducting personal research involving various facets of poultry protozoan diseases. His primary research interests are in the physiological and biochemical aspects of poultry coccidiosis and in the pathological response of poultry to coccidial infections.

Jerrel B. Powell was appointed Chief, Field Crops Laboratory, PGGI, effective February 13, 1977. Dr. Powell received his B.S. and M.S. from Oklahoma A&M College and his Ph. D. from Washington State University. He joined ARS as a Research Geneticist at Tifton, Georgia, in 1963 and transferred to Beltsville in 1971. His research at Tifton was in the area of cytogenetics of perennial and annual warm-season forage grasses. At Beltsville, his research has been in the area of genetics and cytogenetics of cool- and warm-season grasses used for turf or forages in the eastern portion of the United States. Dr. Powell serves as National Technical Advisor in grass breeding. He is an authority on mutation breeding of vegetatively propagated grasses.

Gideon W. Schaeffer was appointed Chief, Cell Culture and Nitrogen Fixation Laboratory, PPHI, effective April 10, 1977. Dr. Schaeffer received his B.A. from Yankton College and his M.S. and Ph. D. from the University of Nebraska. Following his Ph. D., he was a postdoctoral fellow at Brookhaven National Laboratory, 1960-62, working in the area of plant tissue culture. He received additional postdoctoral training at Le Phytotron, Gif-sur-Yvette, France, working in the area of tissue culture on the isolation of cytokinins. Dr. Schaeffer joined ARS at Beltsville in 1964. His research has been in developmental physiology, biochemical genetics, and regulator biochemistry. He is continuing his research on biochemical and physiological processes involved in the growth and regulation of plants.

James C. Smith joined the Vitamin and Mineral Nutrition Laboratory, NI, on April 11, as the long awaited Laboratory Chief. Dr. Smith comes to us from the Veterans Administration Hospital, Washington, D.C., where he directed research for the last 10 years concerning vitamin and trace element metabolism in health and disease. He received graduate degrees in nutrition from the University of Maryland (National Institutes of Health Fellow) with a postdoctorate at the University of California, Los Angeles. Dr. Smith spent 2 years as a Commissioned Officer of the U.S. Public Health Corp. at the National Institutes of Health, involved in germ free research in the Laboratory of Nutrition and Endocrinology. Dr. Smith serves as Professorial Lecturer, Biochemistry Department, George Washington University, where he lectures on trace element metabolism. He plans to continue his research on vitamins and trace element metabolism as it relates to animal and human nutrition with special emphasis on studies concerning vitamin A and zinc.

CHANGES IN BARC COMMITTEES

BARC Energy Conservation Committee--Leon Pheder, Chief, Utilities and Services Branch, Division of Operations, has been added to this committee.

BARC Forage Research Committee--V. L. Miller, Chief, Farm Management Branch, Division of Operations, has been added to this committee.

BARC Major Analytical Instruments Committee--K. H. Norris, Chief Instrumentation Research Laboratory, AMRI, has been elected Chairperson for this committee, replacing K. K. Stewart, Chief, Nutrient Composition Laboratory, NI. Dr. Stewart continues as a member of the committee.

BARC Safety Committee--R. F. W. Schroder, IIBIII, has replaced D. R. Miller. N. W. Hooven, Animal Operations Unit, has replaced W. H. Peters. W. Jones, APHIS, Veterinary Services Laboratory, has replaced W. H. Ritchie.

BARC Biohazard Committee--This is a new committee with the following members: Chairperson, R. M. Faust, Insect Pathology Laboratory, PPI; R. E. Davis, Plant Virology Laboratory, PPI; L. D. Owens, Cell Culture and Nitrogen Fixation Laboratory, PPHI; and R. J. Unger, Safety Manager, Division of Operations.

CHANGE IN LOCATION OF SAFETY LIBRARY

The Safety Library for PGGI has been changed from Room 130, Building 001, to Room 208, Building 467.

GERMPLASM RELEASE

The Pennsylvania Agricultural Experiment Station and the Agricultural Research Service, U.S. Department of Agriculture announce the release of cigar filler tobacco variety Pennlan. The new variety is highly resistant to tobacco mosaic and wildfire diseases and moderately resistant to the black root rot disease. Also, leaf yield of Pennlan was reduced less than the yield of Pennbel 69 from etch virus infection, indicating tolerance to the etch virus.

COMING EVENTS

Symposium on Calcium Nutrition of Economic Plants. This Symposium, organized under the auspices of BARC and the American Society for Horticultural Science, will be held at BARC, October 5-7, 1977. The aims of the Symposium are: to summarize and evaluate current knowledge of Ca as a plant nutrient; to present previously unreported findings on all aspects of Ca nutrition; to identify areas of and approaches to research having potential for reducing losses from Ca stress.

BARC Symposium II. This Symposium, Biosystematics in Agriculture, will be held at BARC May 8-11, 1977. The Symposium will focus on the biosystematics of insects, nematodes, animal parasites, fungi, and higher plants. All approaches to biosystematics--including classical, theoretical, experimental, operational, basic and applied--will be discussed. We hope that the Symposium will stimulate the development of classification systems of maximum utility and predictability for agricultural science and will make the agricultural research community more aware of the actual and potential benefits of biosystematic research.

BARC 4-H Tours. The annual BARC tour by 4-H members is scheduled for June 7 through August 23. The tours will be conducted every Tuesday morning from 10 a.m. until noon. Approximately 6,000 4-H members are expected.

EMPLOYEE ACTIVITIES

Frank N. Dickinson, Chief, Animal Improvement Programs Laboratory, APGI, was invited to speak at two regional dairymen meetings in Kansas, on March 15-16, 1977. His topic was "Ways to Use Superior AI Bulls to Improve the Production and Profitability of Dairy Herds." While in Kansas, Dr. Dickinson also taped two television shows produced by the Kansas State University Extension Service for showing throughout the State.

Donald T. Krizek, Plant Stress Laboratory, PPHI, participated in the United Nations Environmental Program International Meeting on the ozone layer, held in Washington, D.C., March 1-7. Dr. R. J. McCracken, Associate Administrator, ARS, received letters of appreciation for Dr. Krizek's contribution from the Honorable Patsy T. Mink, Assistant Secretary Designate, Oceans and International Environmental and Scientific Affairs, U.S. Department of State, and from Dr. Edward S. Epstein, Associate Administrator, Environmental Monitoring and Prediction, National Oceanic and Atmospheric Administration, U.S. Department of Commerce.

Joseph Caro, Agricultural Chemicals Management Laboratory, AEQI, was invited by the Environmental Protection Agency to discuss the ARS-EPA Manual, "Control of Water Pollution from Cropland," of which he was a coauthor, at a National Conference on Section 208 of the Federal Water Pollution Control Act. The conference, with over 800 attendees, was held at Reston, Virginia, on March 16-17, 1977.

A. W. Taylor, J. H. Caro, and B. C. Turner, Agricultural Chemicals Management Laboratory, AEQI, attended the 173rd National Meeting of the American Chemical Society, in New Orleans, Louisiana, from March 20 through 23. Dr. Taylor presented a paper on "Volatilization of Heptachlor and Dieldrin from Field Vegetation." Mr. Caro presented a paper on "Disparlure: Volatilization Rates of Two Microencapsulated Formulations Applied to a Grass Field." Mr. Turner presented a paper on "Volatilization of Microencapsulated and Conventionally Applied CIPC in the Field." All three papers were presented before the Pesticide Division of the Society.

EXCESS PROPERTY

See enclosure.

HONORS AND AWARDS

Aref Abdul-Baki, Seed Research Laboratory, AMRI, cooperating scientist on a PL-480 project assigned to Dr. S. C. Roy, Department of Biochemistry, University College of Science, Calcutta, was notified by the Far Eastern Regional Research Office that this project has been awarded the "Certificate of Appreciation from the U.S. Department of Agriculture," in recognition of the fine research that was accomplished. Dr. Roy and his colleagues have been conducting research on the effect of some growth promoters and inhibitors on the synthesis of mitochondrial proteins in germinating seeds. Dr. Abdul-Baki and his associates in the Seed Research Laboratory had a significant input into this project.

Harold E. Moline, Horticultural Crops Marketing Laboratory, AMRI, has been named Toastmaster of the Year for 1976 by the Plant Industry Toastmasters Club 2627. During 1976, Dr. Moline served as Educational Vice President, coordinated a Youth Leadership Program, sponsored a participant in the Speechcraft Program, completed his basic manual, spoke to groups outside his own club, participated in the area speech contest, and enthusiastically recruited guests and new members. At the same time, he also served as President of the BARC Employees' Association.

Cash Awards

Joseph H. Graham, Plant Stress Laboratory, PPHI, for postulating the potential danger of European Verticillium wilt disease to U.S. alfalfa production. He identified the first incidence of the disease in the U.S., thereby providing American scientists forewarning to develop methods of control.

Quality Within Grade

Dona M. Harkleroad, Insect Physiology Laboratory, PPI.

James D. Anderson, Post-Harvest Plant Physiology Laboratory, AMRI.

Thomas J. Sexton, Avian Physiology Laboratory, APGI.

VISITORS

Japan--The Japanese Survey Mission on U.S. Science Policy visited BARC on the afternoon of March 30, 1977, to meet with Steven C. King, Deputy Administrator, and A. A. Hanson, BARC Director. The 10-member delegation, accompanied by two Embassy officials and an interpreter, was headed by Dr. M. Yoshiki, a member of the Council for Science and Technology, which reports directly to the Prime Minister. The delegation is responsible for studying all fields of science, and is connected with the Ministry of Agriculture and Forestry.

Mexico--Mr. Gonzales, Agricultural Attache, Embassy of Mexico, and Dr. Horcasito, InterAmerican Development Bank, visited BARC on March 29, 1977. Dave Morgan discussed organization and program with them and took them on a tour of the Center. They were interested in a preliminary visit to prepare them for future visits with scientific staff, perhaps on a monthly basis.

Surinam--Dr. Agnes Kong Tse Lam, who holds the titles Chief of Food Inspection Service and Chief, Central Laboratory, visited BARC on Friday, March 18. She visited A. W. Kotula and K. Ono, Meat Science Research Laboratory, AMRI, and R. J. Argauer, Analytical Chemical Laboratory, AEQI, and obtained information about methods and procedures that will be useful to her work. Bernard Schwab, Norris Robinson, and Richard Reamer, APHIS, also provided helpful information.

France--Messrs. Rognon, Deputy Director of Agence Nationale de Valorisation de la Recherche, and Laudrin, Manager of the Food and Agriculture Program for the Agency, visited BARC on March 28 and 29, 1977. P. A. Putnam gave them an overview of the research program. Visits and discussions with A. W. Kotula and K. Ono, Meat Science Research Laboratory, A. A. Abdul-Baki, Seed Research Laboratory, and R. E. Hardenburg, Horticultural Crops Marketing Laboratory, AMRI, filled their day, March 28. Mr. Laudrin returned the following morning to meet with J. A. Alford and N. P. Wong, and R. E. Hargrove of the Dairy Foods Nutrition Laboratory, NI, before visiting with Dr. Kramer at the University of Maryland.

Denmark--M. M. Kulik, Seed Research Laboratory, AMRI, hosted an informal discussion on some current topics in seed pathology. This session--hosted in his laboratory--was attended by S. B. Mathur of the Danish Government Institute of Seed Pathology for Developing Countries, E. E. Leppik and Muriel O'Brien, of ARS, and R. Khan, of APHIS.

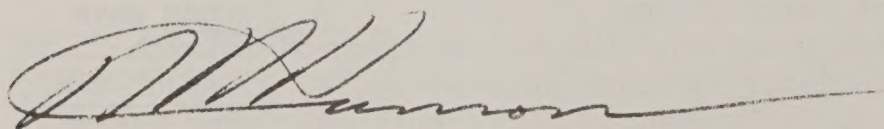
Sweden--On April 6 and 7, Dr. Hans Funke and Mr. Lars Brolund, of Eskilstuna, Sweden, visited BARC and consulted with R. H. Miller, W. D. Schultze, J. W. Smith, G. W. Bodoh, A. J. Guidry, and M. B. Hayden, Genetics and Management Laboratory, APGI, about their research on bovine mastitis. Dr. Funke is in charge of the Livestock Farmers' Cooperative Mastitis Control Scheme in Sweden. C. A. Kiddy, Reproduction Laboratory, APGI, was also visited.

Bulgaria--Vanya I. Miteva, Microbiologist, Institute of Microbiology, Bulgarian Academy of Sciences, Sofia, Bulgaria, is spending 8 months with R. M. Faust, Insect Pathology Laboratory, PPI, to work on transformation of genetic material between mutants of Bacillus thuringiensis and transformation between Bacillus thuringiensis and Bacillus popilliae. The results of these preliminary investigations will be utilized for future transformation/recombinant DNA studies and development of more broad spectrum strains of entomopathogenic bacteria for production by commercial companies. Dr. Miteva is being sponsored by the International Research Exchange Board (IREX), New York, N.Y.

Brazil--Dr. Laerte Grisi, Associate Professor of Parasitology of the Veterinary College of Rio de Janeiro, Brazil, visited the Animal Parasitology Institute. He conferred with various members of the Institute's four Laboratories on problems of mutual interest, and used the National Parasite Collection to resolve some problems of identification.

Missouri--Sarah Pratt, Laboratory Technician in the Parasitology Section, Department of Microbiology of the Veterinary College of Missouri, was shown basic techniques of culturing, isolating, and storing parasites of ruminants by Bernard Ryan of the Ruminant Helminthic Diseases Laboratory, API.

SUMMARY--During March, the Visitor Staff provided service to 1,332 individuals. These included: Scientists and special interest groups - 163; colleges, universities, and educators - 213; school students, grades 4 through 12 - 363; regularly scheduled public tours - 109; self-guided tours - 216; unscheduled general information - 83; and foreign - 185 (representing 40 countries). Thirty BARC scientists were called upon to assist with foreign visitors or special programs.



A. A. Hanson
Director, BARC

Enclosure

EXCESS MATERIALS

The items listed below are in good condition and available at the Biologically Active Natural Products Laboratory, AEQI.

<u>Item</u>	<u>Quantity</u>	<u>Inventory</u>	<u>Extension</u>
Balance, torsion	1	Yes	42025
Balance, microchemical	1	Yes	42025
Camera, Polaroid	1	-	42025
Card punch machine, IBM	1	Yes	42488
Centrifuge, clinical	1	-	42019
Chairs, office, metal (arm)	2	-	42488
Cork borers, set	1	-	42025
Desk, office, metal	1	-	42488
Gas chromatograph, Aerograph	1	Yes	42025
Gas chromatograph, F&M 500	1	Yes	42025
Gas chromatograph, Prepmaster	1	Yes	42488
Spectrophotometer, UV & Visual	1	Yes	42025
Spectrophotometer, junior, Coleman	1	-	42025
Stirrer, electric	1	-	42025
Table, office, 62 x 38 x 34	1	-	42025

The following items are available at Building 060, South Farm, BARC-West; contact David Burley, X42789 or X42792.

<u>Item</u>	<u>Quantity</u>	<u>Condition Code</u>
Surgical lights carrying case mounted	3	N-1
Physical therapy lights	2	N-1
Spotlight floor stand	1	N-1
Chroma-Cab PI-15-2241, P76737, S83009653	1	O-3
Oven Precision Scientific Company P26404, S124-1360	1	O-3
Examining table	1	O-3

The following item is available at Room 301, Building 007, BARC-West, Agricultural Chemicals Management Laboratory, AEQI; contact Ron Milberg, X43573.

<u>Item</u>	<u>Quantity</u>	<u>Condition</u>
Oven, 110 V, Type A, Precision Scientific, Serial No. 100-2797	1	Good

UNITED STATES DEPARTMENT OF AGRICULTURE
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NOTES FROM THE DIRECTOR

No. 89

May 27, 1977

The Director's Office would like to share with you portions of two letters received by Dr. R. J. McCracken, Associate Administrator, ARS, regarding the participation of Dr. Donald T. Krizek, Plant Stress Laboratory, PPHI, in the United Nations International Meeting on the Ozone Layer.

(From Patsy T. Mink, Assistant Secretary of State, Oceans and International Environmental and Scientific Affairs:)

"I wanted you to know how we feel about what Dr. Krizek contributed to the U.S. effort, and also wanted you and the Department of Agriculture to know that without the contributions of experts in agencies such as yours, the pursuit of our government's international objectives simply could not be carried out effectively."

(From Edward S. Epstein, Associate Administrator for Environmental Monitoring and Prediction, NOAA, USDA:)

"I take great pleasure in commending to you the important contributions which were made by Dr. Donald T. Krizek to the U.S. participation in the United Nations Environment Program International Meeting on the Ozone Layer which was held in Washington, D.C., on March 1-7."

VISITING SCIENTIST

Dr. Falk R. Rittig, Chemist with BASF, Germany, arrived at BARC on April 4 to spend 5 months as a visiting scientist working with J. B. St. John, Weed Science Laboratory, AEQI, on structure activity relations of substituted pyridazinones with emphasis on modification of plant response to temperature extremes.

CONFERENCES AND SEMINARS

Maryland Consortium of Biological Scientists--G. E. Cantwell and R. M. Faust, Insect Pathology Laboratory, PPI, and D. Morgan, Visitors Unit, hosted the Sixth Annual Meeting of the MCBS, here at Beltsville, on April 16. Over 40 biology teachers from Maryland colleges and universities were brought up to date on various research activities here at the Center.

The Maryland Center for the Study of Systematic Entomology--Cooperating institutions are the Department of Entomology, University of Maryland; the Insect Identification and Beneficial Insect Introduction Institute, BARC, ARS, USDA; and the Department of Entomology, Smithsonian Institution. The objectives are: (1) to allow qualified graduate students, interested in the systematics of insects and related arthropods, an opportunity to utilize this national resource; and (2) to insure that skilled systematists will be available in the future to study those arthropod groups affecting agricultural productivity and human health in the United States.

EXCESS PROPERTY

See attachment.

CHANGES IN BARC COMMITTEES

BARC Animal Care Committee for API--M. D. Ruff, Chief, Poultry Protozoan Diseases Laboratory, API, has replaced D. K. McLoughlin. G. F. Slonka, Livestock Protozoan Diseases Laboratory, API, has been added to the committee.

BARC EEO Committee--P. A. Kessler, Chairman's Office, IIBIII, has replaced R. L. Smiley. Ms. Kessler is also the BARC representative to the NER EEO Advisory Committee. D. P. Morgan, Visitor Unit, has been added to the BARC Committee.

BARC Safety Committee--J. Grinsted, Animal Operations Unit, has replaced N. W. Hooven.

COOPERATIVE PROGRAMS

The Systematic Entomology Laboratory, IIBIII, recently received for identification a large lot of insects consisting of nearly 2,000 specimens from Texas Tech University. This large identification request is in connection with a cooperative program between Texas Tech and the USDA-ARS Weeds Group concerning insects on perennial broomwood.

On March 21, 1977, Lt. Colonel W. DuBose, Armed Forces Pest Control Board, and E. Evans, Edgewood Arsenal, visited the entire staff of the Chemical and Biophysical Control Laboratory together with N. O. Morgan (Biological Evaluation of Chemicals Laboratory), W. Cantelo (Vegetable Laboratory), R. Webb (Florist and Nursery Crops Laboratory), and R. J. Retzer (Agricultural Equipment Laboratory). The meeting was arranged by W. N. Sullivan and D. K. Hayes. The group demonstrated the newest equipment for generating ultra-low volume aerosols, automatic particle size determination using a laser beam-forward light scattering machine and actual determination of particle sizes in aerosols generated from mixtures of dioctylphthalate and propellant. Appropriate approaches to developing environmentally safe solvents (with respect to polynuclear aromatic hydrocarbons) for pesticides and mechanisms developing military specifications for pesticides and equipment were reviewed.

Several large collections of insects recently identified by scientists in the Systematic Entomology Laboratory, IIBIII, for the Department Entomologia, Centro Regional de Investigacion Agraria, not only were of service to Peruvian agriculture, but aided SEL research on weevil pests, and contributed 843 specimens to the U.S. National Collection. Among the 3,790 specimens identified by 28 SEL scientists, about 238 were Premnotrypetini potato tuber borers identified by D. R. Whitehead. Because of the great diversity of weevil specimens in the Peruvian collection, it was possible to show that a supposedly authoritative 1956 publication by a European taxonomist is completely inadequate for identification of these pests.

The Chemical and Biophysical Control Laboratory, AEQI, in cooperation with APHIS, has developed a new aerosol formulation (2% d-phenothrin in propellants 11 and 12) that is gaining international acceptance for use in preventing the spread of insects dangerous to man, his crops, fibers, and animals by international carriers. The World Health Organization Committee on International Surveillance of Communicable Diseases has approved the formulation. The report of this committee will be presented to the World Health Assembly during May (1977) before inclusion in the International Health Regulations. The outstanding properties are excellent knockdown and killing power over insects, safety to warmblooded animals, and absence of odor. Quantas Airways conducted extensive aircraft disinsection tests of the d-phenothrin formulation in cooperation with the Australian Department of Health (Quarantine Division) which led to the decision by Quantas to adopt the formulation for disinsection of cabin interiors and aircraft holds. The Ministry of Agriculture and Fisheries, New Zealand, is also interested in this formulation, and their Dr. Robert D. Archibald will be at BARC on May 16 and 17 to discuss aircraft disinsection with us.

During the week of March 21-25, several scientists of the Systematic Entomology Laboratory, IIBIII, participated in a training program for APHIS survey personnel. APHIS is beginning a new pest detection survey in the U.S., part of which is aimed at the early discovery of foreign pests not known to occur here and which are of potential danger to U.S. agriculture. SEL scientists lectured to the 40 APHIS trainees on means of recognizing the 125 foreign pests targeted for the survey.

The Insect Identification and Beneficial Insect Introduction Institute is now distributing specimens of 13 additional species in the reference collection "Insects Not Known to Occur in the United States (INKTO)." This reference material is sent to 63 recipients throughout the U.S., including 18 APHIS ports of entry. The INKTO project, which is maintained in the Institute, currently included 59 species of exotic insect pests of economic importance which could become established in the U.S. Descriptions of these pests are published in the Cooperative Plant Pest Report. The purpose of this project is to aid APHIS and State entomologists in the recognition of potential pests and prevent their introduction and establishment in the U.S.

EMPLOYEE ACTIVITIES

D. K. Hayes, Chief, Chemical and Biophysical Control Laboratory, AEQI, presented an invited address entitled "Photoperiodism in Insects Important to the Agricultural Sciences," at the 45th Annual Meeting of the Minnesota Academy of Science, St. Cloud State University, April 29, 1977.

H. E. Heggestad and J. H. Bennett, Plant Stress Laboratory, PPHI, participated in the Ninth Annual Air Pollution Workshop, May 3 through 5, 1977, at Virginia Polytechnic Institute and State University, at Blacksburg. Approximately 125 persons concerned with the effects of air pollutants on vegetation, from the United States, Canada, and England, were in attendance.

M. N. Christiansen, Chief, Plant Stress Laboratory, PPHI, presented an invited seminar to the Botany and Agronomy Departments, University of Arkansas, April 18 through 21. He also presented a seminar to the extension and research personnel at the Cotton Branch Station, Marianna, and consulted with State Plant Board Seed Laboratory personnel on cottonseed germination problems.

H. M. Cathey, Chief, Florist and Nursery Crops Laboratory, PGGI, taped two 30-minute programs for the NBC program "Not For Women Only." The cohosts are Lynn Redgrave and Frank Fields. The subject will be the use of containers for growing decorative plants which you can cut, smell, or eat. A feature will be the use of artificial light to supplement the available light, the use of reflecting surfaces, and efficient lamps to increase the effectiveness of lighting. There will be a studio audience to ask questions.

J. W. Goble, Animal Products Marketing Laboratory, AMRI, served on a committee of three scientists designated to make the annual audit of the books and records of the United States Branch of the World's Poultry Science Association. The committee was selected by the President of the U.S. organization.

R. E. White, Systematic Entomology Laboratory, IIBIII, was on official travel to Europe from March 12 to April 8, 1977, during which time he visited the British Museum of Natural History, London; the Institut Royal des Sciences Naturelles de Belgique, Brussels; and the Museum National d'Histoire Naturelle, Paris. The work consisted of examination of unique type-specimens of certain species of leaf beetles (Chrysomelidae) and of deathwatch beetles (Anobiidae), which will aid Dr. White's research on the classification and identification of these important plant feeding beetles.

At the April 13, 1977 meeting of the Delmarva Poultry Processors Personnel Association, J. W. Goble, Animal Products Marketing Laboratory, AMRI, was an invited speaker and discussed his research findings on job satisfaction of broiler processing plant workers and the effects of worker attitudes on processing costs and management programs.

C. D. Foy, Plant Stress Laboratory, PPHI, recently conducted an invitational seminar entitled "Mineral Stress," at the Department of Natural Resource and Environmental Studies, Alabama A&M University, Normal, Alabama. He also consulted with staff and graduate students concerning a project to develop Triticale varieties with greater tolerance to mineral stress in acid soils.

The Scientific Advisory Council of the Pacific Egg and Poultry Association invited J. W. Goble, Animal Products Marketing Laboratory, AMRI, to participate as a guest in their annual conference held recently to review current research projects on poultry and egg production and marketing problems. Dr. Goble was asked to report on processing research activities. The Council includes scientists from seven western State universities, allied industries, and government regulatory agencies.

M. B. Stoetzel, Systematic Entomology Laboratory, IIBIII, was at North Carolina State University, Raleigh, from April 4 to 8, to study the aphid collection and literature files of Dr. Clyde F. Smith and to confer with Dr. Smith on his "List of the Aphids of North America." The taxonomic status of several genera and species were determined, enabling completion of a manuscript.

A. A. Hanson, Director, and A. A. Abdul-Baki, Chief, Seed Research Laboratory, AMRI, attended the Advisory Committee Meeting for OECD Seed Schemes, in Paris, April 26-28, 1977. In conjunction with this trip, Dr. Hanson reviewed the program of the European Marketing Research Center, Rotterdam, the Netherlands.

The results of a study, by J. J. Karitas, Food Distribution Research Laboratory, AMRI, of costs of delivering groceries and frozen foods to restaurants--in combined or separate loads--were featured in the March issue of "Refrigerated Transporter," and the April issue of "Institutional Distribution." The study showed how a moderate sized institutional wholesaler could lower costs by over \$50,000 yearly through shipping combination loads.

HONORS AND AWARDS

The National Academy of Sciences named 60 new members, including five from the Washington area and one from Baltimore, in recognition of outstanding achievements in original research. One was Theodor O. Diener, a plant pathologist in the Plant Virology Laboratory, PPI. Dr. Diener discovered the "viroid," a disease-producing agent 80 times smaller than the previously smallest known virus.

The Institute for Scientific Information, publishers of Current Contents and Science Citation Index, has written David L. Trout, Carbohydrate Nutrition Laboratory, NI, that he is senior author of one of the 500 scientific papers most cited during the years 1961-1975. The paper was entitled "Titration of Fatty Acids of Plasma--A Study of Current Methods and a New Modification." Coauthors were S. J. Friedberg and E. Harvey Estes, Jr. It was published in the Journal of Lipid Research, in 1960.

Cash Awards

Phoebe P. Seppi, Field Crops Laboratory, PGGI, for providing very high skills and competence to the scientist in charge of updating USDA Agriculture Handbook No. 452. Supplements contain tables with detailed technical information to be typed in final form for camera ready copy for publication.

Banner L. Phillips, Ruminant Nutrition Laboratory, NI, for the sustained outstanding performance in the preparation and analysis of samples.

Margaret R. Martin, Reproduction Laboratory, APCI, for sustained outstanding performance in the cleaning of glassware for the four laboratories located in Building 200 (Ruminant Nutrition Laboratory and Non-Ruminant Animal Nutrition Laboratory, NI, and Feed Energy Conservation Laboratory and Reproduction Laboratory, APCI).

Herman H. Smith, Animal Operations Unit, for suggesting the use of a permanently established "pass on" record book to be used at the Dairy Unit to: (a) improve communications between management and employees, and (b) update those employees who have been absent on any and all changes which may have taken place during their absence.

Quality Within Grade

Sheldon Reiser, Chief, Carbohydrate Nutrition Laboratory, NI.

Max G. Hickman, Florist and Nursery Crops Laboratory, PGGI.

VISITORS

Maryland--A group of 30 botany and agronomy students from the University of Maryland-Eastern Shore, visited the Agricultural Research Center on April 12, 1977. As requested by Dr. Jim Doyle, their instructor, a continuous program, from 10:30 to 2:30, was arranged. The following scientists participated: T. E. Devine and C. Sloger, Cell Culture and Nitrogen Fixation Laboratory, PPHI; R. H. Zimmerman, Fruit Laboratory, PGGI; R. K. Howell and J. H. Bennett, Plant Stress Laboratory, PPHI; G. R. Chandra, Seed Quality Laboratory, AMRI; and J. E. Silvius, Light and Plant Growth Laboratory, PPHI. Obie Patterson, Assistant to the Deputy Administrator, EEO, also met with the students.

Brazil--On April 21, Dr. Jesus Marden Dos Santos, Brazilian agroclimatologist, visited Beltsville to review the Plant Taxonomy Laboratory, PGGI, program to relate average yields of unusual economic plants with average climates of Third World countries. Also, Dr. Dos Santos was briefed on the embryonic computer program relating biomass data to climate. Since Brazil is taking a lead in preparing ethanol from biomass,

Dr. Dos Santos was interested in the Plant Taxonomy Laboratory's computerized biomass data bank with climatic data for 20,000 weather stations. He may provide yield data for some of the Brazilian stations. J. G. Moseman, Chairman, PGGI, discussed important Brazilian crops and G. E. Carlson, Chief, Light and Plant Growth Laboratory, PPHI, discussed the activities of the laboratory with Dr. Dos Santos. M. B. Hayden, Genetics and Management Laboratory, APGI, reviewed the Solar Energy Research Program (milking parlor applications). Dr. Dos Santos was accompanied by Mr. William Brinley of Smithsonian's Radiation Biology Laboratory.

Canada--Drs. G. E. Shewell and D. M. Wood, Biosystematics Research Institute, Agriculture Canada, Ottawa, visited the Diptera Research Group of the Systematic Entomology Laboratory, IIBIII, during April 14-23. They studied the parts of the collection in their research interests and conferred with SEL dipterists who are contributing to a manual of Diptera of North America being produced by Agriculture Canada.

England--Dr. M. R. Ashmore, research scientist, Imperial College Field Station, England, visited the Plant Stress Laboratory, PPHI, on May 6. Photochemical oxidants have increased in England since 1972. Concentrations in 1976 were similar to those measured in the Eastern United States. They plan to use Bel-W3 tobacco as a biologic indicator at 65 sites in 1977.

England--Mr. Brian R. Pitkin, specialist on Thysanoptera, or thrips, with the British Museum (Natural History), spent March and April in the Systematic Entomology Laboratory, IIBIII. Mr. Pitkin is curating thrips specimens obtained by the Smithsonian Institution from J. Douglas Hood. He will also effect exchanges of thrips between the British Museum and the Smithsonian, and upon completion of this work, will visit and collect thrips with Dr. Michael Kostarab, Virginia Polytechnic Institute and Miss Ramona Beshear, Georgia Experiment Station.

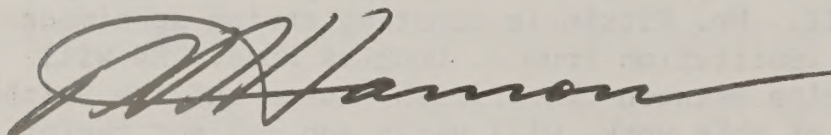
Iran--Dr. Iranpour GHAEM-MAGHAMI, a veterinarian in bee and fish diseases, is spending 8 months in the U.S. (beginning May 3), under the United States-Iran Joint Commission on Economic Cooperation, U.S. Department of Agriculture cooperating. His first 6 weeks are being spent at the Bioenvironmental Bee Laboratory, PPI, in an on-the-job training program on diagnosis and control of bee diseases, bee nutrition, and bee management.

Washington, D.C.--Dr. Edward M. Barrows and 17 students in his Entomology Class at George Washington University visited BARC on April 20. S. W. T. Batra, Beneficial Insect Introduction Laboratory, IIBIII, discussed her work on insects as they might be used as control agents of noxious weeds. Also, Dr. Batra is working on the introduction from Japan of a bee, Osmia cornifrons, to be used as an apple pollinator; the students were able to watch the bees in action. M. B. Stoetzel, Systematic Entomology Laboratory, IIBIII, explained her work on aphids, psyllids and aleyrodids. Dr. Stoetzel gave the students a tour of the collection of aphids and discussed the alternation of hosts and the diversity of morphs found in the aphids--characteristics which make the aphids an interesting but difficult group to study.

Italy--Dr. Antonio Tranfaglia, Instituto de Entomologia Agraria, Universita di Napoli, visited with D. R. Miller, Systematic Entomology Laboratory, IIBIII, and S. Nakahara, Animal and Plant Health Inspection Service, from February 24 to March 5. He spent considerable time working with the National Collection of Scale Insects and discussing research problems.

Poland--Mr. Ben Kramski, Chief Coordinator for PL 480 Projects in Poland, visited BARC on May 19. A. A. Hanson, BARC Director; J. G. Moseman, Chairman, PGGI; H. W. Fogle, Fruit Laboratory, PGGI; R. E. Webb, Chief, Vegetable Laboratory, PGGI; J. W. Smith, Chairman, APCI; P. D. Thompson, Genetics and Management Laboratory, APCI; and T. S. Rumsey, Ruminant Nutrition Laboratory, NI, discussed BARC research. In the afternoon, a roundtable discussion was held with NPS.

Japan--On May 3, EPA and AEQI were visited by a group of 20 visitors sponsored by Zen-Noh, a Japanese Agricultural Cooperative. The group included 12 managers of different Japanese chemical companies involved in formulation and sales of pesticides. R. E. Redfern, Biological Evaluation of Chemicals Laboratory; V. E. Adler, Biologically Active Natural Products Laboratory; D. K. Hayes, Chief, Chemical and Biophysical Control Laboratory; R. W. Miller, Chemical and Biophysical Control Laboratory; L. G. Pickens, Chemical and Biophysical Control Laboratory; J. F. Carroll, Biological Evaluation of Chemicals Laboratory; and J. L. Hilton, Chairman, AEQI, discussed BARC research.



A. A. Hanson, Director
Beltsville Agricultural Research Center

Enclosure

EXCESS PROPERTY

The chemicals listed below are available at the Pesticide Degradation Laboratory, AEQI; contact George Marrow, X43082:

Chemical	Amount			
	Pint	Quart	Gallon	Case
Ethyl Acetate, B & B				8
" " , Baker				3
Ethylene Glycol, Baker				2
Hexane, Fisher				1
" , Baker				5
Benzene, Baker				12
2-Propanol, Baker				1
Methylene Chloride, B & B				2
" " , Fisher				1
Benzene, Fisher			12 5-Gal.	
Dimethyl Formamide, Baker	12			
1-Propanol, Fisher				1
2-Propanol, Fisher				1
Isopropyl ether, Baker			2	
Petroleum ether, Baker			2	
Cyclohexane		2		
2-Propanol		1		
2,2,4-Trimethyl		1		
Petroleum ether, Baker		1		
Hexane	8			
Demethylformamide	1			
Liquid Phenol, Mallinkrodt				1
Butyl alcohol, Eastman			2	
" " , Baker			1	
Chlorobenzene			1	
2-Furaldehyde			1	
Ethyl alcohol			1 5-Gal.	
Methyl ethyl Ketone			1 5-Gal.	
Ligroine			2	
Acetyl chloride	2			

The item listed below is available at the Poultry Protozoan Diseases Laboratory, API; contact Phil Madden, X42496:

<u>Item</u>	<u>Quantity</u>	<u>Inventory</u>
Dry Ice Storage Chest	1	-

Enclosure

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE

NORTHEASTERN REGION
AGRICULTURAL RESEARCH CENTER
BELTSVILLE, MARYLAND 20705

NOTES FROM THE DIRECTOR

No. 90

June 22, 1977

LETTER OF APPRECIATION

We would like to share the following letter with you that we received from John G. Kemp:

"I am an employee of the Department of Defense, Ft. Meade, Md., and I drive through the 'farm' on Powder Mill Road almost every day to and from work. It is a real pleasure to take this route because of the pleasant drive through the 'farm.' Meticulous care given to the entire 'farm' is quite evident. The fences are all lined up, grass under the fences is neatly cut, grass along the roadway is always cut and the area is kept free of trash, and the buildings are in excellent repair. Contented cattle and other livestock graze everywhere. Also, the crops are always well tended and the land seems to produce abundantly. The place just makes my day, either going or coming! In the spring and early summer it is strikingly beautiful with colorful shrubbery and trees in bloom.

"To you and your staff, the farm is certainly a tribute to good planning, hard work, and apparently an interest of people who work on the 'farm' in making it a beautiful place. I am an ex-farm boy and know a well run farm when I see one."

NEW EMPLOYEES

Dr. Gerald F. Slonka, D.V.M., Ph. D., has joined the equine babesiosis project, Livestock Protozoan Diseases Laboratory, at the Animal Parasitology Institute. Jerry comes here from the University of California, Davis, where he was an Assistant Professor in the Department of Microbiology, School of Veterinary Medicine. In addition to his research responsibilities, he will assist Dr. W. M. Frerichs in the care and treatment of Institute livestock. He has been appointed to serve as a member of the BARC Animal Care Committee for API.

GERMPLASM RELEASES

The Delaware Agricultural Experiment Station and ARS announced the release of soybean variety Celest. Celest is a high-yielding variety with excellent seed quality and good seed holding which matures 10 days later than Delmar and 6 days later than James. Plants have a dense gray pubescence, purple flowers, and are determinate. Seed are yellow and the hilum is gray colored. Both pods and seeds possess good resistance to the fungus Diaporthe sojae which causes the gray moldy seed disease.

Celest is resistant to Meloidogyne incognita acrita which is one of the most common species of root-knot nematodes. Plants have had tolerance to drought in light sandy soils and also some tolerance to Mexican bean beetle has been noted. This new variety matures in about the same number of days as the Essex soybean. Seed of Celest are larger than the seed of Essex. Seed quality and root-knot nematode resistance are equal to that of the Delmar soybean. Yield of Celest is higher than the yield of Delmar and particularly so in light sandy soils.

ARS announced the release of peach cultivar Havis. Havis ripens about 5 days later than Redskin at Beltsville. The fruit is large, freestone, moderately firm, yellow fleshed, sometimes with considerable redness around the pit cavity, and has good quality. It has an attractive yellow undercolor and a bright red blush covering 80 to 90 percent of the fruit surface. Pubescence is short and sparse. Blossoms are non-showy, and self-fertile. Glands are reniform. The chilling requirement to break the rest period has not been determined.

Trees of Havis are vigorous and productive. Leaves and fruit are relatively free of symptoms of bacterial spot (Xanthomonas pruni). Trees subjected to a severe hailstorm in 1975 were rated in the group most resistant to infection of vegetative growth by brown rot (Monolinia fruticola).

Havis has been evaluated in West Virginia, Pennsylvania, New York, and Maryland and is being introduced for its attractive, high quality fruit that ripens directly after Redskin and Elberta. It has been tested primarily in the Northeastern United States but it is also suggested for trial planting in other producing areas.

ARS announced the release of peach cultivar Cullinan. Cullinan ripens 7 to 10 days later than Redhaven or about August 1 at Beltsville. The fruit is large, freestone, firm, yellow-fleshed and has good quality. A bright red blush covers approximately 80 percent of the peach at shipping maturity. The undercolor is a bright, clear yellow and the pubescence is light. Flesh color is a bright, clear yellow. Blossoms are non-showy, with medium-sized petals, and are self-fertile. Glands are reniform. The chilling requirement to break the rest period has not been determined.

Trees of Cullinan are vigorous and productive. Tolerance to bacterial spot (Xanthomonas pruni) on leaves and fruits appears to be superior to that of its parent McNeely, which is more resistant than most cultivars. Vegetative growth was rated moderately resistant to infection by brown rot (Molinia fruticols). Cullinan has been evaluated in Arkansas, South Carolina, North Carolina, West Virginia, Pennsylvania, New York, and several New England States.

Cullinan is being introduced because of its large, firm, attractive, high quality fruit which ripens after Redhaven and because the tree is resistant to bacterial spot. It has been tested primarily in the Northeastern United States, but it is also suggested for trial planting in other producing areas.

COOPERATIVE ACTIVITIES

Transportation:

A cooperative Government-industry program of research, development, and demonstration designed to improve the efficiency and reduce the costs of transporting perishable food products and livestock to overseas markets is being undertaken by the Transportation and Packaging Research Laboratory, AMRI, and the Office of Advanced Ship Operations, U.S. Maritime Administration. The proposed program was presented by the two agencies to officials of the American Flag Carriers and other segments of the U.S. Merchant Marine at a recent meeting in Washington which was addressed by Mr. M. Pitkin, Assistant Administrator of the Maritime Administration, and Dr. Ralph McCracken, Associate Administrator of ARS. Specific projects approved by the conference for implementation as soon as possible include:

1. Remote Monitoring of Refrigerated Cargo in Transit.
2. Ambient Air-Cooling and Ventilation of Perishable Foodstuffs in Marine Containers.
3. Controlled Environment Barge.
4. Air Leakage of Refrigerated Containers.
5. Distribution of Refrigerated Air in Barges and Containers.
6. Livestock Barge and Container Design.

Training:

The Systematic Entomology Laboratory (SEL), IIBIII, conducted a 2-day training session, in May, on the identification of gypsy moth parasites. The 20 participants represented the Forest Service and State agencies from Massachusetts, New Jersey, New York, Pennsylvania, West Virginia, Virginia, Maryland, Wisconsin, and Michigan. SEL scientists located at the Smithsonian who taught the course were C. W. Sabrosky, R. W. Carlson, and P. M. Marsh.

EMPLOYEE ACTIVITIES

Spring Meeting, American Geophysical Union (AGU), Washington, D.C.:

W. J. Rawls, Research Hydrologist, Hydrograph Laboratory, PPHI, presented the paper "A Planning Tool for Economic Evaluation of Alternatives for Storm Drainage Facilities," coauthored with Dr. Richard H. McCuen, Department of Civil Engineering, University of Maryland, at AGU's Hydrology Session on Monday, May 30. Dr. Rawls presented a planning tool for use in evaluating various possible designs and the effect on total cost of imperviousness, design return period, and the time of concentration. The utility of the planning tool was demonstrated for the Washington, D.C., Dallas, Texas, and Los Angeles, California, areas.

At that same session, T. J. Jackson, newly-appointed Research Hydrologist, Hydrograph Laboratory, PPHI, presented the paper "Impact of Using Landsat Data in Hydrologic Planning and Design Models," coauthored with Dr. Robert M. Ragan, Department of Civil Engineering, University of Maryland, and Dr. William N. Fitch, Water Resources Engineers, Inc., Springfield, Va. Dr. Jackson's paper dealt with the testing of hydrologic plan and design models to determine potential of using Landsat satellite data to determine land cover parameters. Results showed that this is a cost effective approach for planning level studies; however, an acceptable degree of effectiveness for design level investigations is unachievable at the present time.

Editorial Consultant:

J. Ralph Lichtenfels, of the Animal Parasitology Institute, has been appointed as a Consultant to the Editor of the Journal of Parasitology. He previously served on the Journal's Editorial Board.

CHANGES IN BARC COMMITTEES

BARC Science Seminar Committee--P. C. Allen, Livestock Protozoan Diseases Laboratory, API, has replaced J. R. Lichtenfels on this committee. G. R. Beecher, Protein Nutrition Laboratory, NI, is the new chairperson. J. D. Anderson, Post-Harvest Plant Physiology Laboratory, AMRI, is the new vice chairperson. R. L. Powell, Animal Improvement Programs Laboratory, APGI, is the new treasurer, and P. C. Allen is the new secretary.

BARC Training Committee--D. B. O'Brien, Chairman's Office, IIBIII, has replaced P. M. Marsh. K. A. Hummel, Farm Management Branch, Division of Operations, has replaced J. Gordon. J. D. Anderson, Post-Harvest Plant Physiology Laboratory, AMRI, has replaced R. Chiddo. These changes will be effective July 1 but the appointments were confirmed earlier so that both the old and new committee members could attend the June meeting.

BARC Safety Committee--L. V. Knutson, Chairman, IIBIII, has replaced R. F. W. Schroder. S. Barnett, NPS, has replaced E. O'Connor.

BARC Meat Animal Care Committee--R. P. Bradbury, Food and Drug Administration, has been appointed to this committee.

BARC Small Animal Care Committee--R. P. Bradbury, Food and Drug Administration, has been appointed to this committee.

HONORS AND AWARDS

National Academy of Sciences:

T. O. Diener, Plant Virology Laboratory, PPI, for his research on viroids.

USDA Distinguished Service Awards:

T. C. Tso, Chief, Tobacco Laboratory, PGGI, for his research on tobacco.

T. O. Diener, Plant Virology Laboratory, PPI, for his research on viroids.

USDA Superior Service Awards:

L. A. Johnson, Reproduction Laboratory, APGI, and V. G. Pursel, Reproduction Laboratory, APGI, for their research on freezing swine semen.

Biological Waste Management and Soil Nitrogen Laboratory, AEQI, for their research on sewage sludge utilization.

Quality Within-Grade:

W. E. Jones, Plant Stress Laboratory, PPHI.

Other Awards:

M. Faust, Chief, Fruit Laboratory, PGGI, received congratulations for his part in the Agricultural Seminars, Timisoara, Romania.

MayBelle Chitwood, retired from API, will receive an honorary doctorate from Northern Michigan University, Marquette, at their summer commencement in August.

W. L. Smith, Horticultural Crops Marketing Laboratory, AMRI, cooperating scientist on a PL-480 project assigned to Dr. H. W. Borecka and Associates, Research Institute of Pomology, Skierniewice, Poland, was notified by IPD that this project recently received a "Certificate of Appreciation" from USDA for very fine work conducted on effects of BCM fungicides on the incidence of fungal rots of apple, strawberry and raspberry fruit, and degradation of BCM residues in fruits in CA storage. Dr. Smith made significant input in planning and yearly review of this project.

VISITORS

Japan--Mr. Teruo Shimuro of the Osaka Agricultural Research Center, Osaka, Japan, visited AMRI on June 3 and discussed research with H. S. Ricker, Chairman; R. E. Hardenburg, Chief, Horticultural Crops Marketing Laboratory; and J. Bouma, Chief, Market Operations Research Laboratory. Mr. Shimuro's area of research is farm management.

Brazil and Romania--Mr. Reni A. Werner from the Secretaria Agricultura, Station Catarina, Brazil, and Mr. Stefan Chiriac, Trustul Pomiculturii, Pitesti, Romania, visited with staff members of the Horticultural Crops Marketing Laboratory and the Instrumentation Research Laboratory, AMRI, on June 2 and 3. Both men will soon be returning to their countries from Rutgers University to do research and extension on fruit marketing.

Israel--Dr. Mina Schiffmann-Nadel, Mycologist, Department of Fruit Storage Research, Hebrew University, Vulcani Institute of Agricultural Research, Rehovot, Israel, visited with W. L. Smith and R. E. Anderson, Horticultural Crops Marketing Laboratory, AMRI, May 17. She was interested in the intermittent warming treatments for peaches that we have been testing, and the increasing occurrence of Mucor and other previously unimportant microorganisms.

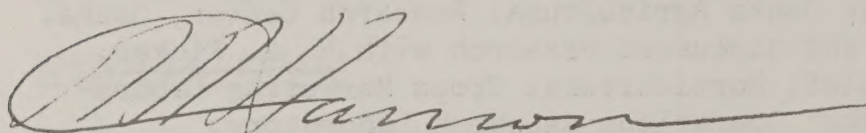
Hungary--Mr. Istvan Gondola, Agronomist, Tobacco Research Institute at Debrecen recently spent 6 weeks visiting the Plant Hormone and Regulators Laboratory, PPHI. Mr. Gondola was awarded a study grant provided by the Swiss members of CORESTA, an international group of tobacco manufacturers. He will also spend time in Georgia and North Carolina during his 5-month stay in this country.

New Zealand--On May 16 and 17, Mr. Robert D. Archibald of the Ministry of Agriculture and Fisheries, Mt. Albert Research Centre, Auckland, New Zealand, visited the Chemical and Biophysical Control Laboratory, AEQI. Quarantine developments on aircraft disinsection were discussed. He asked for and received all BARC information on the Oriental fruit moth, Grapholitha molesta (Busck), that has recently invaded New Zealand. Keen interest was shown in the diapause studies directed by D. K. Hayes.

Washington, D.C.--The Parasite Classification and Distribution Unit of the Animal Parasitology Institute was visited on May 16 by Dr. William Page and his class of veterinary technicians from the Washington Technical Institute.

India--Dr. C. R. Shanmugham, Dean, College of Agricultural Engineering, Tamilnadu Agricultural University, India, visited the Seed Research Laboratory, AMRI, and discussed with A. Abdul-Baki, Laboratory Chief, subjects of research interest including practical approaches for determining viability and vigor of seeds.

Washington--Dr. Y. Tanaka, Weyerhaeuser Company, Centralia, Washington, visited R. Yaklich and W. VanDerWoude, Seed Research Laboratory, AMRI, and discussed his plans to establish a seed quality laboratory. He sought suggestions and ideas for establishing his new laboratory.



A. A. Hanson, Director
Beltsville Agricultural Research Center



OF UNITED STATES
DEPARTMENT OF
AGRICULTURE

BELTSVILLE AGRICULTURAL RESEARCH CENTER
BELTSVILLE, MARYLAND 20705

NOTES FROM THE DIRECTOR

No. 91

July 25, 1977

ASSISTANT DIRECTOR, BARC

Essex E. Finney, Jr., has been appointed Assistant Director, BARC. Dr. Finney has the background and experience that is so essential in managing research. Dr. Finney is highly respected for the leadership that he provided to the Agricultural Marketing Research Institute from 1972 to 1975. He will add an important dimension of expertise to this office, based on his training and research experience in marketing and agricultural engineering.

NEW ASSIGNMENTS FOR LABORATORY CHIEFS

After over 8 years as Chief, Protein Nutrition Laboratory, NI, and former Human Nutrition Research Division, David A. Vaughan resigned his assignment. He will remain with the Laboratory as a research scientist. We appreciate the outstanding leadership that he has provided to our research on proteins.

Robert R. Oltjen, Chief, Ruminant Nutrition Laboratory, NI, has accepted the position of Director, Meat Animal Research Center, Clay Center, Nebraska. We wish Bob every success in his new assignment, and look forward to improved collaboration between BARC and MARC.

NEW EMPLOYEES

The Soilborne Diseases Laboratory, PPI, welcomes James C. Locke, a Plant Pathologist, who joined the Laboratory for a year. Dr. Locke received his Ph. D. in plant pathology from Purdue University in May 1977. He will study chemical control of soilborne plant pathogens utilizing special techniques.

COOPERATIVE ACTIVITIES

Harold F. Winters, Germplasm Resources Laboratory, PGGI, hosted a group of graduate students from Eastern Mennonite College, Harrisonburg, Virginia, on June 30. Dr. Kenton Brubaker, the class Professor, praised Dr. Winters' presentation, saying it was a very valuable experience for this group, most of whom have already spent some time in tropical countries and will be returning to missions.

D. R. Miller and M. B. Stoetzel, Systematic Entomology Laboratory (SEL), IIBIII, were instructors for an intensive short course which dealt with the identification of economic scale insects and which was taught at the

University of Maryland, June 13-25. In addition to SEL instructors, scientists from the University of Maryland, Virginia Polytechnic Institute and State University, University of Tennessee, Auburn University, University of Georgia, and Animal and Plant Health Inspection Service served as teachers. Participants in the course came from many States and territories including Delaware, Florida, Maryland, Minnesota, Missouri, Puerto Rico, Texas, and Washington, and were extension specialists, county agents, university professors, APHIS area identifiers, ARS research scientists, chemical company employees, laboratory technicians, and graduate students. J. Tassone, SEL, took the course to assist him in his job as Biological Laboratory Technician, working on scale insects. Based on comments from the participants, the course was a tremendous success.

Kenneth W. Bell, instructor, Department of Agriculture and Natural Resources, Delaware State College, Dover, Delaware, wrote the following to Dave P. Morgan, Visitor Unit:

"The Agriculture and Natural Resources Science course was a success again this year. I would like to take this opportunity to express my sincere appreciation to you for scheduling the scientists. I hope that you will convey to each of the participating scientists a very special thanks for their efforts and contributions. The Agriculture and Natural Resources faculty feels that the favorable impact of the lectures on our students is phenomenal. I believe that more is accomplished through this cooperation than words can express and I hope it will continue."

At the invitation of the Israel Ministry of Agriculture, R. M. Waters, Biologically Active Natural Products Laboratory (BANPL), AEQI, spent the period May 5 to June 16 at the Department of Chemistry, Ben Gurion University of the Negev, Beersheba, Israel, helping to set up a semi-pilot plant for producing synthetic sex pheromone of the Egyptian cotton leafworm, Spodoptera littoralis. This is one of the major insect pests of cotton and alfalfa in Israel and the pheromone, whose synthetic preparation was developed by BANPL, is used throughout the cotton-growing areas of the Upper Galilee and Bet-She'an Valley for surveying areas of infestation and mass trapping of the male insects, resulting in lower population densities and considerable reductions in the number of insecticidal treatments necessary to control the pest. During his stay in Israel, Dr. Waters also conferred with personnel of the Plant Protection Department of the Ministry of Agriculture and the Cotton Production and Marketing Board, in Tel Aviv and Bet Dagan, with whom BANPL is cooperating on several projects sponsored by the U.S.-Israel Binational Science Foundation.

EMPLOYEE ACTIVITIES

M. Jacobson, Chief, Biologically Active Natural Products Laboratory, AEQI, participated in an invitational ARS Workshop on Natural Products Chemistry as Related to the Control of Insects and Plant Diseases of Cotton,

June 21-22, in New Orleans, Louisiana. The 32 participants presented the current status of their research in the subject area, identified research imperatives, and jointly discussed research needs.

The following employees at the Animal Parasitology Institute completed a Cardiopulmonary Resuscitation Course held at their Conference House:

J. Byler, S. Edwards, K. Goodson, M. Hood, R. Maschauer, D. McLoughlin, V. Mazzola, L. Montgomery, R. Moore, J. Rayburn, G. Shaffer, and J. Smothers. The course was given by a volunteer for the Prince George's County Chapter of the American Red Cross. There are three other Cardiopulmonary resuscitation certified employees at API--W. Anderson, B. Chute, and R. Leek.

CHANGES IN BARC COMMITTEES

BARC Safety Committee--Steven Tanner, AMS Grain Division, has replaced R. W. Gallup.

HONORS AND AWARDS

Cash Awards

Bessie Carpenter, Plant Stress Laboratory, PPHI, was detailed to the Laboratory when the lead secretary transferred and the second secretary, her backup clerk, resigned at approximately the same time. She assumed the duties of the secretary in an efficient and expert manner and kept the Laboratory office operating smoothly during a very difficult period.

Anthony J. Messineo, Refrigeration Shop, Maintenance and Construction Branch, Division of Operations, for applying superior trade skills in the maintenance, repair and installation of refrigeration and air-conditioning facilities for research purposes at BARC.

Quality Within Grade Increase

Eva Hope Estes, Agricultural Chemicals Management Laboratory, AEQI.

Sheldon Reiser, Chief, Carbohydrate Nutrition Laboratory, NI.

VISITORS

Bulgaria--Mr. Vulcan Shopov, Bulgarian Minister of Agriculture, visited Beltsville on June 21. A. A. Hanson, Director, BARC, conducted him on a tour of the Center with stops at the National Agricultural Library and the Animal Improvement Programs Laboratory, APGI. Mr. Shopov, who is on a 30-day tour of the United States, made a special request to include BARC on his itinerary.

Fiji--Dr. Robin Yarrow, Director of Agricultural Research, Fiji, visited BARC on June 21. He attended the seminar given by his former Professor,

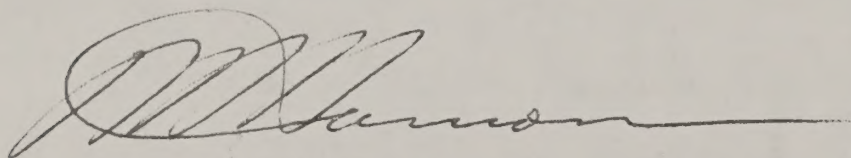
Dr. A. K. Lascelles, Victoria, Australia. He was given a short general tour and, at his request, visited the apiary. A short meeting with Thor Lehnert, Bioenvironmental Bee Laboratory, PPI, was arranged.

Australia--Dr. A. K. Lascelles, Chief of Division of Animal Health, C.S.I.R.O., Australia, visited M. J. Paape and A. J. Guidry, Genetics and Management Laboratory, APGI, on June 21-23. They discussed mutual interests in mastitis research, especially immunological aspects. Dr. Lascelles also visited researchers in the Animal Parasitology Institute.

Guinea--His Excellency Lansana Biavogui, Prime Minister of the Republic of Guinea, visited Beltsville on June 24, 1977. He had visited the Center about 8 years ago and wanted the people accompanying him on this visit to the U.S. to see BARC. The Prime Minister's party included his Minister of the Domain of Education, the Minister of Social Welfare, the Minister of Planning, the Ambassador to the United States, His Excellency William Harrop, the U.S. Ambassador to Guinea, and Andrew C. Gilboy, Deputy Director of the Washington Office of the African American Institute. P. A. Putnam, Assistant Director, BARC, extended an official welcome, and the group toured both sides of the Center.

New Zealand--Mr. Tom Frewen, Embassy of New Zealand, and Mr. Roderick L. Whyte, Managing Director, Foodstuffs Wellington Cooperative Society, Ltd., met recently with Kenneth H. Brasfield and Jack L. Runyan, Food Distribution Research Laboratory, and John C. Bouma, Market Operations Research Laboratory, AMRI, to discuss layouts and equipment for a new food distribution warehouse being planned by the Cooperative Society.

Australia--Mr. T. O. D. Hughes, Managing Director, Frigmobile of Australia Pty., Ltd., met recently with Kenneth H. Brasfield and Jack L. Runyan, Food Distribution Research Laboratory, AMRI, to discuss methods of warehousing frozen foods and delivering them to retail food stores.



A. A. Hanson, Director
Beltsville Agricultural Research Center



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BELTSVILLE AGRICULTURAL RESEARCH CENTER
BELTSVILLE, MARYLAND 20705

NOTES FROM THE DIRECTOR

No. '92

August 31, 1977

CONGRESSMAN COMMENTS

U.S. Representative Frederick W. Richmond of New York's Fifteenth District, a multiethnic district in New York City, speaking at the National Urban Waste Composting Conference, Silver Spring, Maryland, on August 24, stated in part:

"I have visited and worked on farms in dozens of States...visited scores of food processing plants...talked with wholesale distributors and retail marketers and spent hours talking about food prices and nutrition with consumers in supermarkets, corner stores and apartment house kitchens. That chain--grower to consumer--satisfactorily completes the food cycle for most people. But, I have also been to one of Washington's most exciting new tourist attractions: the waste composting site at the U.S.D.A. Experimental Station at Beltsville, Maryland. There--on cold days and hot days--I have seen the work that truly closes our food chain. There I have seen the work that I consider to be the most important long range food and farm-oriented research going on in the country today. There I have seen answers being developed to one of the most pressing problems facing our urbanized society of the late 1970's: disposing of what we erroneously call 'waste' and producing what we correctly call a resource. At Beltsville, I came away convinced I talked with the direct descendants of alchemists who used to search for that elusive secret process to turn lead into gold. I am convinced that the true wizards of our age are no longer plying their trade under high peaked hats, blending frog's eyes and powdered newts with lead shavings but, attired in coveralls and work boots, are now blending wood chips, shredded garbage and waste paper with sewage sludge. Their goal is not to defraud with fool's gold but to revitalize our tiring land for generations to come."

CONGRESSIONAL STAFF VISITS BARC

Mr. Richard D. Lieberman, Staff Member, Subcommittee on Agriculture and Related Agencies, Senate Appropriations Committee, and Mr. Robert B. Foster, Staff Assistant, Subcommittee on Agriculture and Related Agencies, House Committee on Appropriations, visited BARC on August 10. They toured BARC with Dr. Hanson and Dr. Vanden Berg visiting the following research projects: Instrumentation Laboratory, AMRI; Plant Virology Laboratory, PPI; Fruit Laboratory, PGGI; Vegetable Laboratory, PGGI; Light and Plant Growth Laboratory, PPHI; Pesticide Degradation Laboratory, AEQI; Weed Science Laboratory, AEQI;

Ruminant Helminthic Diseases Laboratory, API; Non-Ruminant Helminthic Diseases Laboratory, API; Ruminant Nutrition Laboratory, NI; Meat Science Laboratory, AMRI; Chairman's Office, NI; Bioenvironmental Bee Laboratory, PPI; and Biological Waste Management and Soil Nitrogen Laboratory, AEQI.

NEW EMPLOYEE

The Meat Science Research Laboratory, AMRI, welcomes Bradford W. Berry, who joined the Laboratory August 14, 1977. Dr. Berry received his Ph. D. in meat science from Texas A&M University in 1972. From 1972 to 1977 he has been on the Animal Science staff at Colorado State University. Dr. Berry will conduct research in the Meat Technology Section on forage fed beef, feeder cattle grades, ground beef and meat tenderness.

VISITING SCIENTISTS

Stuart Lassetter of Richmond, Kentucky, spent several weeks working with C. R. Gunn on legume studies in the BARC-Seed Collection.

Dr. M. Takabayshi from Kitamoto, Saitama, Japan, will spend September 4 to September 17, with the Plant Taxonomy Laboratory, PGGI, collaborating on a computerized study of the ecological and geographical distribution of weeds in Japan. Scientists interested in contacting Dr. Takabayski should call X43319.

COLLECTION DONATED TO BARC

Dr. Richard Heinemann of Longworth College, Farmville, Virginia, has donated an important collection of Anoetidae (mites) to the Systematic Entomology Laboratory, IIBIII. This collection consists of reared material, including immature stages, of 19 species described by R. D. Hughes and C. G. Jackson of the Medical College of Virginia. About 1,000 slides are represented. The material includes many holotypes and paratypes. The Anoetidae feed on micro-organisms in deteriorating plant material; some are pests of mushrooms and lab cultures of Drosophila.

AIRCRAFT DISINSECTING

The Thirtieth World Health Assembly--which met in Geneva, Switzerland, from May 2 to 19, 1977--approved the nineteenth Report of the Committee on International Surveillance of Communicable Diseases which recommended the addition of 2% d-phenothrin (S 2539 Forte) in propellant Freon 11 + 12(50.50) without added solvents to existing approved aerosol insecticides. This recommendation is a result of research conducted by the Chemical and Biophysical Control Laboratory, AEQI, in cooperation with the World Health Organization.

GERMPLASM RELEASES

Three cytoplasmic male-sterile monogerm sugarbeet line and their monogerm pollen-fertile maintainers: The Plant Genetics and Germplasm Institute,

BARC, ARS, USDA, and the Beet Sugar Development Foundation announce the release of three sugarbeet cytoplasmic male-sterile monogerm lines and their monogerm pollen-fertile maintainers (O-types). They are resistant to *Cercospora* leaf spot and *Aphanomyces* black root, diseases of economic importance in the Great Lakes region. These lines were developed from breeding material with a long history of selection for resistance to these diseases.

Cytoplasmic male-sterile monogerm sugarbeet line resistant to *Cercospora* leaf spot and *Aphanomyces* black root: The Plant Genetics and Germplasm Institute, BARC, ARS, USDA, the Beet Sugar Development Foundation, and the Michigan Agricultural Experiment Station announce the release of a cytoplasmic male-sterile monogerm sugarbeet line resistant to *Cercospora* leaf spot and *Aphanomyces* black root, diseases of economic importance in the Great Lakes region.

Three New Cultivars of Impatiens in the Painted Series: The Plant Genetics and Germplasm Institute, BARC, ARS, USDA, announces the release of three new cultivars of the PAINTED IMPATIENS SERIES derived from the New Guinea Impatiens. The cultivars are described as follows:

PEE GEE has bright orange-red flowers about 2½ inches across which contrasts well with the dark green leaves that are variegated with pale, reddish-yellow centers. The leaf veins are purplish on the upper and lower leaf surfaces. The leaves are about 2½ inches long and ¾ inch wide, but larger leaves on older branches may be over 3 inches long and 1 inch wide. The plant can be pruned to a compact form about 9 inches high or grown naturally to a height of about 15 inches. The brownish-red flower buds, red stems and petioles blend well with the dark foliage. PEE GEE is everblooming in the greenhouse. It will hybridize with other New Guinea species and cultivars.

PINK CASCADE has light pink flowers with pale or whitish centers. The flowers, about 2 inches across, are borne on pale pedicels. The leaves are about 2-¾ inches long and 1 inch wide, but older leaves may be over 3 inches long and 1½ inches wide. The variegated leaves are mostly yellow with green borders near the tips. Petioles and stems are light red. The plants are naturally compact, but older plants may require light pruning to maintain their shape and size. PINK CASCADE is difficult to self but it will hybridize with other New Guinea species and cultivars. It is everblooming in the greenhouse.

PINK LADY has flowers about 2 inches across with light purplish coat along the margin of the throat. The pink flowers, reddish flower buds, variegated leaves, and shiny red stems all complement each other to create an attractive and interesting display. The leaves are about 3 inches long and 1 inch wide, and have dark green and bright yellow variegation. PINK LADY can be pruned to desired shapes and sizes. It is an everbloomer in the greenhouse, and will hybridize with other New Guinea Impatiens.

COOPERATIVE EFFORTS AT BARC

On June 24, 1977, Frances F. Krim, Entomologist, Plant Protection and Quarantine, APHIS, Hoboken, New Jersey, identified a tick, Dermacentor variabilis, taken from the head of a 7-year-old boy, hospitalized in Somer, New York. Because of the growing concern over Rocky Mountain Spotted Fever, transmitted by D. andersoni, the tick specimen was sent to R. L. Smiley, Systematic Entomology Laboratory, IIBIII, for confirmation or referral. The specimen was identified by Robert Gerrish, APHIS, BARC-E, who supplied F. Krim with identified specimens of other closely related species, including their developmental stages. Dermacentor variabilis is known to be responsible for the spread of a milder form of Rocky Mountain Spotted Fever to all parts of the United States.

R. L. Smiley, Systematic Entomology Laboratory, IIBIII, was asked to identify mites taken from a water-cooling system for an air-conditioner of the Monsanto Agricultural Products Company, Pensacola, Florida. According to Dr. J. Marshall Magner, Senior Entomologist for Monsanto, the mites were causing respiratory problems among workers in the plant. The mite was identified as Schwiebia sp., family Tyroglyphidae and is the first report of this mite causing such a physiological condition.

Future horticulturists of Maryland held a special day of training and education at BARC on Friday, July 22. Arranged by David Jenkins and Joyce Marvin, junior horticulture project leaders, and Norman G. Smith, State Program Leader for 4-H and Youth, more than 100 4-H horticulturists toured the greenhouses of the Florist & Nursery Crops Laboratory, PGGI, to see demonstrations on plant variegations by Ken Tuthill; UV injury, P. Semeniuk; plant viruses, S. Hearon and J. McKenzie; Impatiens, S. Jolley; meristem culture, S. Dunn; and growth regulators, M. Cathey. K. Lehnert, R. Borisko, and M. Hickman served as guides. In the afternoon, a training program was held to teach plant and pest identification and the judging of horticultural products.

EMPLOYEE ACTIVITIES

G. E. Cantwell, Insect Pathology Laboratory, PPI, V. H. Lytton, Animal Improvement Programs Laboratory, APGI, recently completed the last 2-week phase of a 10-week residence course in Research and Development Management at the U.S. Army Logistics Management Center, Fort Lee, Virginia. Both are Lt. Colonels in the U.S. Army Reserve.

The Plant Taxonomy Laboratory, PGGI, had a hot summer with field work by A. A. Atchley in Costa Rica, Nicaragua, and the Dominican Republic; T. C. Davidson and J. A. Duke in Arizona; C. R. Gunn in Illinois; and E. E. Terrell in Utah.

M. B. Stoetzel, Systematic Entomology Laboratory, IIBIII, was at the University of Manitoba, Winnipeg, Canada, from June 29 - July 2, to study the aphid collection and literature of Dr. A. G. Robinson, professor and head of the Department of Entomology. It is hoped that Dr. Robinson, upon his retirement, will be giving a portion of his aphid collection to the National Collection of Insects.

Jack A. Lewis, Soilborne Diseases Laboratory, PPI, recently returned from a visit to Israel where he reviewed a U.S.-Israel Binational Science Foundation Project entitled "Combined Biological and Chemical Means for the Control of Damping-off Diseases in Beans and Cotton." Work on this 3-year project is being performed by the Department of Plant Pathology and Microbiology of the Hebrew University of Jerusalem at Rehovot and the Soilborne Diseases Laboratory. In addition to having visited several agricultural installations, Dr. Lewis met with staff of the Faculty of Agriculture at Rehovot, the Volcani Institute at Bet Dagan, and the Negev Regional Experiment Station at Beer Sheva. He presented a seminar at Rehovot entitled "Effect of Mineral Amendments on Selected Soilborne Plant Pathogens," and one at Bet Dagan entitled "Recent Developments in Biological and Chemical Control from the Soilborne Diseases Laboratory."

M. C. Carter, Assistant to the Director for Management and Reporting, has been detailed to additional duties as Assistant to the Director for the Visitor Unit, effective July 26. This detail was necessitated by the recent illness of D. P. Morgan.

HONORS AND AWARDS

G. C. Papavizas, Chief, Soilborne Diseases Laboratory, PPI, was elected Fellow of the American Phytopathological Society at the 1977 Annual Meeting at Michigan State University. The award was given to Dr. Papavizas in recognition of outstanding contributions to research, and national and international leadership on soilborne plant pathogens.

J. R. Coulson, Chief, Beneficial Insect Introduction Laboratory, IIBIII, has been elected to serve as one of three members-at-large in the 1977 slate of officers of the Western Hemisphere Regional Section of the International Organization for Biological Control.

CASH AWARD

Ruth Ann Nash, Tobacco Laboratory, PGGI, for short-term performance as follows:

During the period covered, Mrs. Nash, in addition to her regular duties as Secretary to the Laboratory Chief, prepared the text and tables for a Technical Bulletin, in camera copy form, for publication. The Bulletin involved 154 pages, 104 pages of very complex statistical tables which had been rearranged several times. The Bulletin represents 6 years of research effort involving 22 collaborators from 10 laboratories. It will be the first publication of this nature in such scope, and the collaborators, as well as other research scientists, are quite anxious to see these results.

SUGGESTION AWARD

Michael M. Bozik, Insect Pathology Laboratory, PPI, for suggesting the use of a lightweight polyethylene compressed air sprayer for use in dispensing insect diets into individual cups containing approximately 4 ml. Previously the work was a two-man job; now it is accomplished in one-tenth the time by one man.

VISITORS

Argentina--Jorge Zarrequieta, Under Secretary of Agriculture; Frederico Dussel, General Advisor, National Grain Board; and Saturnino Zemboraien, Agricultural Counselor, Embassy of Argentina; visited BARC on August 17. They visited with A. A. Hanson, Director, BARC; R. A. Kilpatrick, Germplasm Resources Laboratory, PGGI; T. Devine, Cell Culture and Nitrogen Fixation Laboratory, PPHI; P. A. Miller, NPS; and H. Brooks, NPS.

England--Dr. Roger L. Blackman, specialist on the biology and genetics of aphids and with the British Museum (Natural History), spent July 10-12 in the Systematic Entomology Laboratory, IIBIII. Dr. Blackman has spent 5 weeks collecting aphids, especially Euceraphis spp. on birches and Amphorophora spp. on Rubus. He collected in California, Idaho, New York, Oregon, Utah, and three Canadian provinces, as well as in the National Arboretum and selected areas of Maryland. Dr. Blackman conferred with L. M. Russell and M. B. Stoetzel, Systematic Entomology Laboratory; T. L. Bissell, University of Maryland, and F. F. Smith, retired USDA employee, now serving as a collaborator.

Pakistan--Dr. A. Mohiuddin, Sind University, Pakistan, visited the Animal Parasitology Institute. He discussed progress on his PL-480 research project on epizootiology of parasites of sheep and goats with the sponsoring scientist, R. A. Knight, and was briefed by other staff members on the programs of the Institute.

Pakistan--Prof. Eugene Nasir, Director, National Herbarium, Islamabad, Pakistan, visited with E. E. Terrell and J. A. Duke, Plant Taxonomy Laboratory, PGGI, on August 3, concerning PL-480 projects on the Flora of Pakistan. Working closely with Dr. Terrell, Dr. Nasir is beginning to work on the all-important grass family for the Flora of Pakistan.

Pennsylvania--Dr. Robert Travis brought his Westminster special topics biology class to BARC on August 4. The topic this year was plant pest control. Visits were arranged with V. Adler, Biologically Active Natural Products Laboratory, AEQI, C. B. Coffman, Pesticide Action Laboratory, AEQI; R. Sayre, Nematology Laboratory, PPI; and P. Creegan, Cell Culture and Nitrogen Fixation Laboratory, PPHI. The Westminster College class is one of a number of college and university classes which have become repeat customers for BARC tours. J. F. Fleming, Visitor Unit, conducted the tour.

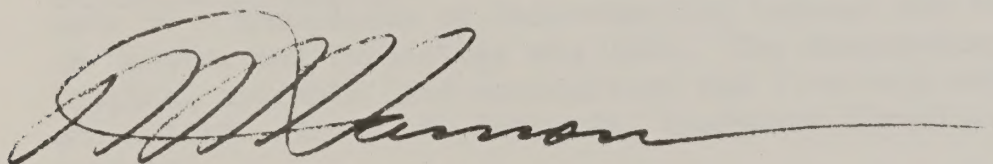
Republic of Mali--The Honorable Koke DEMBELE, Governor, VI Region, Republic of Mali, visited BARC on August 4. A general tour was requested for the Governor by the African-American Institute. It was conducted by M. F. Combs, Visitor Unit.

Saudi Arabia--Mr. Shafik M. Alsharif, Managing Director, and Mr. Faud Shakir Diab, Sales and Marketing Manager, Agricultural Development Stores, Riyadh, Saudi Arabia, requested and were given a tour of BARC on July 15.

Mr. Alsharif owns a chain of agricultural supply stores which distribute agricultural products throughout Saudi Arabia via a network of 10 branch offices and 35 exclusive dealers in Arabia. Ten additional branches will open soon including two distribution facilities in Yemen Arab Republic. Messrs. Alsharif and Diab are seeking U.S. suppliers of agri-chemicals, compound fertilizers, superphosphate fertilizers, garden tools, lawnmowers, spraying and fog generating equipment, small range farming machinery, shallow water pumping equipment, household and hygienic products and allied products.

Saudi Arabia--Ziyad Adham, Director General for Research, Riyadh, Saudi Arabia, toured the Center on July 29. He met with A. A. Hanson to discuss the management of research, and the role of BARC in our national research programs.

Yugoslavia--Dr. Ante Milanovic, from the Institute of Meat Hygiene, Veterinary Faculty, University of Sarajeno, Sarajeno, Yugoslavia, visited the Meat Science Research Laboratory, AMRI, on July 5. Dr. Milanovic had just completed a Fulbright Fellowship appointment at the University of California, Davis.

A handwritten signature in dark ink, appearing to read 'A. A. Hanson', with a long horizontal flourish extending to the right.

A. A. Hanson, Director
Beltsville Agricultural Research Center



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BELTSVILLE, MARYLAND 20705

NOTES FROM THE DIRECTOR

No. 93

September 30, 1977

BARC EEO PROGRAM

Mr. J. Fred King, Assistant Secretary for Administration, and Director, USDA EEO Program, was the principal speaker at the Second Annual BARC EEO Program held Tuesday, October 4, at 1:30 p.m., in the Auditorium, Building Q03. Mr. King entitled his remarks, "EEO from the Departmental Perspective." The movie "One on One," prepared by the Civil Service Commission, was shown. The theme of the program was POSITIVE CHANGE.

MEMORANDUM OF UNDERSTANDING

Dr. R. J. McCracken, Associate Administrator, ARS, announced the establishment of a Memorandum of Understanding between the Mexican National Council on Service and Technology and USDA. The Memorandum covers the fields of tropical and arid land agriculture and livestock management, nutrition, and health. Dr. C. R. Benjamin, Assistant Director, IPD, ARS, USDA, is the contact.

FIFTH ANNUAL BARC AWARDS CEREMONY

Dr. M. Rupert Cutler, Assistant Secretary for Conservation, Research, and Education, reported on the topic, "Future of Agricultural Research." Dr. Angus A. Hanson, Director, BARC; Dr. Essex E. Finney, Jr., Assistant Director, BARC; Dr. Paul A. Putnam, Assistant Director, BARC; and Dr. Steven C. King, Deputy Administrator, NER, participated in the ceremony. One 40-year, four 35-year, twenty-five 30-year, thirty-three 25-year, fifty 20-year, and sixty-nine 10-year Length of Service Awards were presented. Recognition was given for 19 cash awards, 25 Quality Within Grade Increases, 5 Suggestion Awards, 27 Other Awards, and 5 Certificates of Appreciation were presented.

FY-78 FUNDING

Congress appropriated \$330,609,000 for ARS, excluding the \$15,000,000 for Competitive Grant Research Fund to be administered by CSRS. Funds for Scientific Activities overseas amount to \$5,750,000. Significant increases include \$2,781,000 for Soybeans; \$1,000,000 for planning the North Central

Regional Dairy Forage Research Center; \$2,000,000 for planning a Nutrition Laboratory at Tufts University; and \$400,000 for planning a Soil and Water Laboratory at Purdue University. (CSRS Experiment Station Letter 1420, September 2, 1977,)

NATIONAL 4-H CITIZENSHIP PROGRAM

The National 4-H Council has expressed the belief that the summer of 1977 was the best year so far for the Field Trips to BARC as a part of their Citizenship Program. Our thanks to J. F. Fleming, Visitor Unit, for coordinating this activity and to every employee who contributed.

COOPERATIVE ACTIVITIES

Rearing-Action Forefront - On August 31, J. R. Coulson, Chief, Beneficial Insect Introduction Laboratory, IIBIII; R. C. Hedlund, ARS Beneficial Insects Research Laboratory, Newark, Delaware; and P. W. Schaefer, USDA Asian Parasite Laboratory, Japan, visited the Gypsy Moth Parasite Rearing Laboratory at Trenton, N. J. This unit is a part of the New Jersey Department of Agriculture, under the direction of William W. Metterhouse, and rears, studies, and releases parasites of the gypsy moth which have been collected in Japan by Dr. Schaefer, and that BIRL has processed through quarantine. Dr. Hedlund is involved in the field evaluation of the control efficiency of introduced parasites of the gypsy moth in the mid-Atlantic Area, and Mr. Coulson is Technical Advisor for the USDA foreign laboratories in Japan and France. The next day, they toured the equivalent laboratory in Pennsylvania, at Harrisburg. This laboratory, a part of the Pennsylvania Department of Agriculture, is under the direction of Dr. R. Fusco. In addition to seeing the facilities and insect rearing methods, the delegation conferred with staff of the two laboratories on both the overseas and domestic aspects of the biological control of the gypsy moth. (NOTES FROM THE DIRECTOR, Chesapeake-Potomac Area, No. 77-18, September 21, 1977.)

Thesaurus of Entomology - The Entomological Society of America has published a "Thesaurus of Entomology" by R. H. Foote, Systematic Entomology Laboratory IIBIII. Covering the entire field of entomology from systematics to insect and mite control, this book contains over 9,000 terms designed to be used by any individual or organization in indexing the literature of the field. Definitions of terms are not given, but synonyms, broader terms, related terms and "see also" references help the user place any term in its proper context. Most of the sections have been reviewed by appropriate subject-matter authorities.

Screening for Aflatoxin Contamination - The Seed Research Laboratory, AMRI, has been busy demonstrating their rapid procedure for screening of agricultural products for aflatoxin contamination. The demand for this assistance has come from the States of North Carolina, South Carolina, Tennessee, Illinois, and

Maryland where there is great concern about the high aflatoxin incidence in this year's corn crop. Farmers, private grain dealers, and State agricultural officials have visited the Seed Research Laboratory for consultation and advice regarding information for establishing their own aflatoxin control program by the rapid screening procedure as established by J. Velasco, chemist at the Seed Research Lab. The lack of testing facilities has placed a serious burden on the farmers who cannot sell their corn without a certificate of analysis. Numerous requests for workshops and visits to areas of concern, such as North Carolina, have been responded to by the Seed Research Lab. Further scheduling of workshops and assistance by phone and mail are now in progress.

Zoological Institute - G. Gordh, Systematic Entomology Laboratory, IIBIII, recently returned from a 6-month visit to the Soviet Union. Dr. Gordh spent most of the time working in Leningrad at the Zoological Institute with his Soviet counterpart on problems of the taxonomy of Nearctic Encyrtidae. These hymenopterous insects are of paramount importance to biological control because most species are parasites of insect pests associated with agriculture. Together the two scientists will publish 15 papers dealing with their research; 11 papers will be published in the Soviet Union. The exchange program was under the auspices of the National Academy of Science. Dr. Gordh has been invited by the Soviets to return for 3 months during 1979.

Venezuela - E. W. Baker, Systematic Entomology Laboratory, IIBIII, visited Venezuela, from April 12 to May 31, at the invitation of the Departments of Agronomy of the Universidad Central de Venezuela at Maracay and the Universidad de Zulia at Maracaibo. He acted as a consultant to the study of the plant feeding mites and their predators, and also worked over the mite collection at the Universidad de Venezuela. Areas surveyed were, Maracay, Acarigua, Barquisimeto, Maracaibo, and Coro. Work was done in collaboration with Professor Ernesto Doreste of the Universidad Central, Professor Magally Quiros of the Universidad de Zulia, and Ing. Francisco Freitez of the Estacion Experimental de Araure (near Acarigua). Results of the studies indicate that most of the mite fauna of Venezuela is unknown, and that even economically important species have not yet been described. A comprehensive systematic survey of the mite fauna and training of a specialist is recommended.

IR-4 Assignment - J. Feldmesser, Nematology Laboratory, PPI, has been appointed to the Northeastern Region IR-4 Committee by Dr. Steven C. King, Deputy Administrator, NER. Dr. Feldmesser will serve as Liaison Representative in the area of plant diseases and nematodes. Four regional committees advise ARS and IR-4 on programs for minor use pesticides.

International Cooperation on Transportation Research - R. L. Breakiron, Chief, Transportation and Packaging Research Laboratory, AMRI, was provided a complimentary registration by the Province of Quebec Wholesale Grocer's Association to attend their 34th Annual Convention at Pointe au Pic, Quebec, to summarize the research done on the experimental refrigerated van container.

NEW EMPLOYEE

The Tobacco Laboratory, PGGI, welcomes Verne A. Sisson, who joined the Laboratory August 15, 1977. Dr. Sisson received his Ph. D. in plant breeding and genetics from North Carolina State University, Raleigh, N. C., in 1977. Dr. Sisson will conduct research in tobacco genetics and breeding.

VISITING SCIENTISTS

Hydrograph Laboratory - Francis R. Hall, has joined the Hydrograph Laboratory, PPHI, for a 10-month sabbatical from the University of New Hampshire. Dr. Hall is a Groundwater Hydrologist with considerable experience in groundwater modeling, recession curve analysis and water quality. In addition to serving on the faculty at the University of New Hampshire, he has been professionally associated with the New Mexico Institute of Mining and Technology, Illinois State Water Survey, Stanford University, and the U.S. Geological Survey. Dr. Hall also spent two summers as a research hydrologist at the Sleepers River Watershed in Danville, Vermont. At the Hydrograph Laboratory, he will be working on base flow and water yield modeling.

Vegetable Laboratory - Dr. A. Peerally, University of Mauritius, Island of Mauritius, is visiting the Mushroom Project for the next 4 months.

Florist and Nursery Crops Laboratory - Drs. Yukihide Abe, from the Nihon University in Japan, and Alexander Bilyk, from the Eastern Regional Research Center in Philadelphia, PA, are visiting scientists working with S. Asen in the Florist and Nursery Crops Laboratory, PGGI, for the purpose of learning new techniques presently used in the isolation and identification of anthocyanins and other naturally occurring flavonoids.

Genetics and Management Laboratory - Mr. Marek Lukaszewicz, Institute of Genetics and Animal Breeding, Warsaw, Poland, is spending 9 months in the Genetics and Management Laboratory, APGI, on a Fulbright-Hays Fellowship. Mr. Lukaszewicz will be conducting research on selection criteria for dual-purpose cattle, working with R. H. Miller and R. E. Pearson.

DONATION

A large collection of 7,000 insects from India and Idaho was recently donated to the Systematic Entomology Laboratory, IIBIII, by C. C. Blickenstaff, Snake River Conservation Research Center, ARS, Kimberly, Idaho. These

were collected by Mr. Kenneth E. Gibson while he was in India working on a cooperative program with the Indian government, USAID, and ARS. With the increasing number of PL-480 projects involving insects in India, this collection will be a valuable aid in identification.

EMPLOYEE ACTIVITIES

Travel to Brazil and Canada - R. H. Foote, Systematic Entomology Laboratory, IIBIII, traveled to Sao Paulo, Brazil, in June, to study voucher specimens and a very large general collection of fruit flies (Tephritidae) which had accumulated over a long period of time at the Museum of Zoology, University of Sao Paulo. In August, Dr. Foote also visited for a week at Agriculture Canada, Ottawa, for the same purpose. Dr. Foote is currently using this information to construct an identification key to the genera of Tephritidae occurring in the New World south of Texas and Florida.

American Phytopathological Society - G. C. Papavizas, A. Lewis, P. B. Adams, N. O'Neill, and J. Locke, Soilborne Diseases Laboratory, PPI, recently attended the national meeting of the American Phytopathological Society at Michigan State University, East Lansing, Michigan, August 14-18, 1977. Four research papers were presented by these scientists. It was announced at these meetings that Dr. Papavizas was elected a Fellow of the National Society.

Food Science Program at the University of Maryland - P. L. Breakiron, B. H. Ashby, W. A. Bailey, K. E. Hoke, and M. T. Turczyn, of the Transportation and Packaging Research Laboratory (TPRL), AMRI, attended an open house for the new Refrigerated Food Research Laboratory at the University of Maryland. The new laboratory, consisting of eight frozen-food rooms, was recently donated to the Food Science Program of the University by The Refrigeration Research Foundation (TRRF), the research arm of the International Association of Refrigerated Warehouses (IARW). Members of the TPRL met with the Executive Board of the IARW and the Food Science Program faculty of the University of Maryland to discuss research needs and implementation of cooperative research on frozen food packaging and handling at BARC and the new TRRF facility.

Travel to El Salvador and Nicaragua - R. F. W. Schroder, Beneficial Insect Laboratory, and Kessler Schroder, Chairman's Office, IIBIII, traveled to El Salvador and Nicaragua July 13 through 27, to collect parasites of the Mexican bean Beetle, Epilachna varivestis and Diabrotica spp. They were assisted in El Salvador by Dr. Jose R. Quezada, Research Consultant, CENTA - AID Program. Dr. Julio Sequeira Fernandez, Entomologist, INTA, Managua, assisted them in Nicaragua. The live insects collected are being held for recovery of parasites at the quarantine facilities in the Beneficial Insects Research Laboratory, Newark, Delaware.

WTOP's TV Program "Morning Break" - H. M. Cathey, Chief, Florist and Nursery Crops Laboratory, PGGI, appeared on Channel 9 on August 30, at 10 a.m. The program presented information to gardeners on the "Pruning of Plants: Right and Wrong Times." Channel 9 is planning to file a mini-series for use on their new interview program starting in September. The Laboratory has been asked to invite their mini-cam cameras to our greenhouses in Beltsville to film 6 or 8 minute interviews for showing at weekly intervals. It will be a special feature of the show. The program will relate research in the Florist and Nursery Crops Laboratory to gardening activities.

Maryland Center for Public Broadcasting - L. G. Pickens, Chemical and Biophysical Control Laboratory, AEQI, appeared on Channel 22 on September 19. The program discussed new techniques developed at BARC for nonchemical control of face flies of cattle. The technique utilized plywood pyramids painted with a glossy-white latex paint and covered with a clear plastic bag painted on the outside with a sticky adhesive.

USDA Turfgrass Research Field Day - The Field Crops Laboratory, PGGI, held the Annual Turfgrass Field Day, on August 24. Dr. A. A. Hanson welcomed the attendees. Twenty-six different turfgrass experiments were discussed. Approximately 250 people attended.

BARC Visitor Unit - Visitors during July totaled 4,082; 83 were foreign visitors representing 32 countries. The 4-H program brought 15 busloads each Tuesday. The public tours on Tuesday and Fridays were scheduled to the bus capacity, and the self-guided tour accommodated 301 people. The Annual Widening Horizons Program was successfully accomplished on three dates during July. Visitors during August totaled 2,654; 137 were foreign visitors representing 14 countries; 250 visitors attended the Turfgrass Field Day. The public tours on Tuesdays and Fridays were scheduled to the bus capacity, and the self-guided tour accommodated 157 people. The Annual USDA Interns Tour was conducted in August.

Most of you know that D. P. Morgan, Head of the Visitor Unit, was hospitalized on July 25. M. C. Carter, Assistant to the Director, was assigned the additional responsibility of supervising the Visitor Unit. J. F. Fleming served as Acting Head of the Visitor Unit for the first 2 weeks in August while Mr. Carter was on leave.

CRIS Training - PACS, ARS, revised the AD-416 and AD-417 and prepared a new CRIS Manual resulting in major changes in CRIS procedures. Nine training sessions for the Institute Chairmen, the Institute Chairmen's Secretaries, the Laboratory Chiefs, and the Laboratory Chief's Secretaries were held. The training was coordinated by M. C. Carter, who has overall responsibility for the CRIS Units at BARC. Special thanks to E. Hobbs, Administrative Officer, for her assistance in emphasizing the team approach at BARC. We appreciate the time and effort that E. Thompson and F. Porter, PPR, NER, devoted in conducting the training. They did an excellent job of presenting the material.

GENERAL INFORMATION

Agricultural production uses only 3 percent of the energy consumed in the U. S. (This is less than the amount of energy needed to fuel the nation's jet aircraft.) This revealing fact is included in a major report issued last month by the Council for Agricultural Science and Technology (CAST). The Report, "Energy Use in Agriculture: Now and for the Future," is the product of a 22-member multidisciplinary task force of scientists. It summarizes energy use and agricultural practices in relation to economics and to advances in science and technology; it describes the sources, uses and benefits of energy in modern agricultural production and presents alternatives for meeting the rising costs of energy and the tightening of supplies from existing sources in the future. The CAST report also points out three principal benefits from energy use in agriculture: (1) more food is being produced than ever before and with greater labor efficiency; (2) food prices to consumers are low (because food is abundant); and (3) exports of agricultural products contribute to general economic development. Single copies of the report are available free of charge from CAST, Agronomy Building, Iowa State University, Ames, Iowa 50011. (CRIS Supplement Station Letter 1421, September 9, 1977.)

CHANGES IN BARC COMMITTEE ASSIGNMENTS

BARC EEO Committee - A. L. S. Cheng, Tobacco Laboratory, PGGI, and E. C. Moore, Non-Ruminant Helminthic Diseases Laboratory, API, have been reappointed. S. J. Popish, Food Distribution Research Laboratory, AMRI, will replace J. Shaffer, Instrumentation Research Laboratory, AMRI.

BARC Building Renovation Design Committee - This ad hoc committee was appointed and charged with the responsibility of developing guidelines for renovating and refurbishing laboratories at BARC. M. Faust, Chief, Fruit Laboratory, PGGI, is Chairperson. Other members of the committee are: K. K. Stewart, Chief, Nutrient Composition Laboratory, NI; A. A. Abdul-Baki, Chief, Seed Research Laboratory, AMRI; M. N. Christiansen, Chief, Plant Stress Laboratory, PPHI; D. J. Bolt, Reproduction Laboratory, APCI; and L. Welker, Engineering and Planning Branch, Division of Operations.

A report from the committee is due in the Director's Office by December 15, 1977. The report will be discussed at the Staff Meeting on January 2, 1978. Upon acceptance of the report by the BARC Director, the ad hoc committee will be disbanded.

HONORS AND AWARDS

Outside Awards

G. C. Papavizas, Chief, Soilborne Diseases Laboratory, PPI, was elected a Fellow of the American Phytopathological Society.

C. W. Sabrosky, Systematic Entomology Laboratory, IIBIII, has been elected President of the International Commission on Zoological Nomenclature for a 6-year term. He has been a member of the Commission since 1963 and a member of its Council since 1972. He was a member of the Editorial Committee for the first edition of the International Code of Zoological Nomenclature (1961), and is a member of the Editorial Committee that has been preparing a revised edition of the Code.

L. Knutson, Chairman, IIBIII, was elected President-Elect (1979), of the Eastern Branch, Entomological Society of America, at the Branch meeting in Boston, September 14-16. The 1,600-member ESA Eastern Branch will hold its 50th Anniversary Meeting in New York next year. The 7,000-member National Entomological Society of America will hold its annual meeting at the Washington-Hilton Hotel, Washington, D. C., November 27 - December 1, 1977. R. I. Sailer, formerly Chairman, IIBIII, and now at the University of Florida, is currently President of the ESA. Other IIBIII research leaders who have served as President of the National Society include: C. F. W. Muesebeck (1946), P. W. Oman (1959), and C. W. Sabrosky (1969).

Cash Awards

D. A. Burnett, Utilities and Services Branch, Division of Operations, for superior performance in the operation, maintenance, and expansion of the water and sewer systems at BARC.

F. R. Hall, Utilities and Services Branch, Division of Operations, for superior performance as Supervisor of Heating Plant Group 1 at BARC.

T. M. Higgs, Maintenance and Contruction Branch, Division of Operations, for applying superior trade skills in the maintenance, repair, and installation of pipefitting and plumbing facilities for research purposes at BARC.

V. L. Miller, Chief, Farm Management Branch, Division of Operations, for initiating a Land Improvement Program at BARC which upgraded the quality of land available for research plots, made more land available, and greatly improved the appearance of the Center. He served as the Youth Conservation Project Manager and exceeded the national average of productivity by almost 100 percent.

B. L. Nivera, Biological Evaluation of Chemicals Laboratory, AEQI, for outstanding job performance as a temporary replacement for a GS-4 position.

W. J. Nye, Animal Operations Unit, for sustained outstanding work performance as calf barn attendant at BARC.

VISITORS

Brazil--Dr. Minoru Ichinohe, JAMIC, Belem-Para, Brazil visited with the staff of the Nematology Laboratory, PPI, on August 24 and 25. Dr. Ichinohe is on leave from his duties as head of the nematology programs in Japan. In his new assignment, he intends to develop control measures for the control of a nematode-fungus interaction on black pepper, a major problem in some reclaimed regions of the Amazon. In 1958, he spent 1 year at the Beltsville Nematology Laboratory as a Rockefeller grant recipient.

Brazil--Oswaldo Fidalgo visited the Mushroom Project, Vegetable Laboratory, PGGI.

Egypt--Professor and Mrs. Farouk Shafiee, Nematology Research Centre, Faculty of Agriculture, Cairo University, Giza, Egypt, visited the Nematology Laboratory, PPI, during their month-long stay in the USA. This visit was in connection with his PL-480 project on "The utilization of nematodes in the biological control of pests" with William R. Nickle as Cooperating Scientist. He returned to Egypt carrying 2,000,000 "Skeeter Doom" mosquito mermithids for release into irrigation ditches.

Egypt--Dr. M. N. Shatla, Vice Dean of the Faculty of Agriculture, Monoufia University, Egypt, spent August 11 and 12 at BARC in connection with a PL-480 Project on soybean diseases. He visited with J. P. Meiners, cooperating scientist, and F. F. Fan, Applied Plant Pathology Laboratory, PPI, and with scientists of the Soilborne Diseases Laboratory, PPI, and the Cell Culture and Nitrogen Fixation Laboratory, PPHI.

England--Dr. Brian R. Kerry, Nematology Department, Rothamsted Experiment Station, visited BARC from August 8 to 15, 1977. He visited with the staff of the Nematology Laboratory, PPI, and discussed his research efforts to control plant nematodes using microbial agents with R. M. Sayre. He also met with staff members of the Soilborne Diseases, Mycology, and Insect Pathology Laboratories, PPI. On August 10, he presented a seminar on "Fungi and the decrease of cereal cyst nematode populations in cereal monoculture."

England--Dr. Colin Dennis, Mycologist, Microbiology Division, Food Research Institute, Norwich, England, visited the Horticultural Crops Marketing Laboratory, and the Postharvest Physiology Laboratory, AMRI, on September 8. Dr. Dennis is in charge of postharvest research on vegetables.

France--Dr. and Mrs. Marcel V. Loquin, France, visited the Mushroom Project, Vegetable Laboratory, PGGI.

Germany--Dr. Gerlind Eger, Germany, visited the Mushroom Project, Vegetable Laboratory, PGGI.

Japan--P. W. Scheefer, IPD, Asian Parasite Laboratory, Sapporo, Japan, visited J. R. Coulson, Chief, Beneficial Insect Introduction Laboratory, IIBIII, to discuss progress and future program of the Asian Parasite Laboratory. He also visited scientists in IPD; NPS; Systematic Entomology Laboratory, IIBIII; Insect Pathology Laboratory, PPI; and Nematology Laboratory, PPI.

Jordan--Dr. M. Duwayri, Faculty of Agriculture, University of Jordan, visited the Seed Research Laboratory, AMRI.

Lebanon--Salah Abushakra, Professor of Agronomy, College of Agriculture, American University of Beirut, visited the Seed Research Laboratory, AMRI.

Netherlands--J. VanBrummelen, Netherlands, visited the Mushroom Project, Vegetable Laboratory, PGGI.

New Jersey--Professor Steve Garrison, Department of Horticulture, Rutgers University, visited the Seed Research Laboratory, AMRI.

Sweden--Dr. Birgit Nordbring-Hertz, Professor, Department of Microbial Ecology, University of Lund, visited the Nematology Laboratory, PPI, September 6 and 7. She discussed biological control of plant nematodes with R. M. Sayre, and presented a seminar to the laboratory staff on "Morphogenesis in the nematode trapping fungi."

USSR--The Soviet team on economic relations between farms producing vegetables and fruit and the food industry visited BARC on September 28. The team included N. A. Chitanava, Minister of Agriculture, Georgian SSR; I. N. Soldatov, Director, Production Department of Agriculture, Rostov Regional Executive Committee; N. S. Goucharook, Director, Research Institute of Vegetable Growing, RSFSR Ministry of Agriculture; and A. S. Iljinsky, Post Graduate, All-Union Research Institute of Horticulture. A. A. Hanson, Director, BARC, extended a welcome to BARC; R. E. Webb, Chief, Vegetable Laboratory, PGGI, discussed vegetable production research; P. C. Kearney, Chief, Pesticide Degradation Laboratory, AEQI, discussed pesticide degradation research; and the Staff, AMRI, discussed fruit and vegetable marketing research.

Poland--Dr. Jerzy Kaczowski, Dean, Biochemistry Department, Poland Agricultural University, visited the Seed Research Laboratory, AMRI.

Poland--Grzegorz Rytko, Institute of Plant Breeding and Acclimatization, visited the Seed Research Laboratory, AMRI.

OMB and OM&F--Ms. Mollie Frantz, Office of Management and Budget, and Ms. Ann Sibold, Budget, Planning, and Evaluation, visited BARC on September 7. They discussed the research program at the Center with

A. A. Hanson, Director, and received an overview of current research from the following: W. Mertz, Chairman, NI; J. Parr, Chief, Biological Waste Management and Soil Nitrogen Laboratory, AEQI; H. Hawk, Chief, Reproduction Laboratory, APCI; A. Kotula, Chief, and P. Crowe, Meat Science Research Laboratory, AMRI; R. Fayer, Livestock Protozoan Diseases Laboratory, API; D. Miller and L. Knutson, Systematic Entomology Laboratory, IIBIII; K. Norris, Chief, Instrumentation Research Laboratory, AMRI; R. Steere, Chief, and T. Diener, Plant Virology Laboratory, PPI; L. Owens, Cell Culture and Nitrogen Fixation Laboratory, PPHI; M. Faust, Chief, Fruit Laboratory, PGGI; and N. Chatterton, Light and Plant Growth Laboratory PPHI.

EXCESS PROPERTY

Item - Machine, Card Punch, Manual, Condition-01, Original Cost - \$1,333, Location - Room 138, Building 001, BARC-West, Contact - M. Jacobson, extension 42025.

A. A. Hanson per

A. A. Hanson, Director
Beltsville Agricultural Research Center



OF UNITED STATES
DEPARTMENT OF
AGRICULTURE

BELTSVILLE AGRICULTURAL RESEARCH CENTER
BELTSVILLE, MARYLAND 20705

NOTES FROM THE DIRECTOR

No. 94

October 31, 1977

LOCATION CHANGE - ANIMAL OPERATIONS UNIT

Effective on or about November 1, 1977, the Animal Operations Unit office will be located on the Basement Floor of Building 200, Rooms 21, 21A and 21B. They will continue to have the same telephone extensions: 42243, 42244, and 42507. Extension 42550 will be discontinued. At the same time, Len Strozinski, Dairy Herd Manager, will be relocated in Building 177 (Veterinary Hospital). His extension will be 42081 or 42398. The other units of Animal Operations will remain at the same locations with the same phone extension. If there are any questions, please contact Judy Adams, Kitty Snider, or Norman W. Hooven, Jr.

BARC SYMPOSIUM III

The third in a series of BARC Symposia, "Animal Reproduction," will be held May 14-17, 1978. Topics to be covered include reproductive management of livestock; hormonal regulation of gonadal function; gamete culture and preservation; and the effects of the environment and genetics on reproductive performance. The first Symposium in the series, "Virology in Agriculture," was held in 1975, and the second, "Biosystematics in Agriculture," was held last year. The Symposia are designed to provide a forum for presenting and discussing scientific developments that benefit agriculture and have important implications for science in general.

NEW EMPLOYEE

The Tobacco Laboratory, PGGI, welcomes James A. Saunders, who joined the Laboratory on October 24, 1977. Dr. Saunders received his Ph. D. at Miami University, Ohio, in 1975, under Dr. Jerry McClure, and did postdoctoral research with Dr. Eric Conn at the University of California-Davis. He was also employed at Woods Hole Marine Biology Laboratory with Dr. Frank Loewus, and Argonne National Laboratory with Dr. Solon A. Gordon. Dr. Saunders will be conducting research on the physiology and biochemistry of tobacco plants.

COOPERATIVE EDUCATION PROGRAM

In this program a student works for a semester and then returns to class for a semester. The position must be related to the student's academic major. Students are available only from institutions with which a formal agreement has been negotiated. The Northeastern Region has agreements with 13 universities or colleges. Qualified students are referred to the selecting

official by the university or college. This eliminates the need for individual recruitment efforts by the supervisor. Each cooperative education position counts against an "all other" ceiling position, but a single position may be occupied by two or three students at different times during a given year and provide full-time work support. The only limitation a supervisor may encounter is the availability of funds to support essentially a full-time position (GS-3, 4, or 5).

A cooperative student is eligible for noncompetitive conversion to a professional position within 90 days after graduation. BARC utilizes 22 cooperative students.

INTERNATIONAL COOPERATION

The Province of Quebec Wholesale Grocers' Association invited P. L. Breakiron, Chief, Transportation and Packaging Research Laboratory, AMRI, to attend their 34th Annual Convention at Pointe au Pic, Quebec. He summarized research done with the experimental refrigerated van container with emphasis on a modified air circulation system. The experimental container was exhibited at the convention site, and it received much attention and favorable comment.

COOPERATIVE ACTIVITIES

Clarence E. Harris and Jack A. Kinner, Animal Products Marketing Laboratory, AMRI, conducted experiments on scalding and defeathering of 230 coop-reared broilers at the ARS Poultry Research Laboratory, Georgetown, Delaware, on October 13, 1977. Dr. W. Merkley, Acting Director of the Georgetown, Delaware, Laboratory, invited them to use the birds and facilities for collecting data relevant to their marketing research while other data were being collected by personnel of that Laboratory as part of their production research program. The Animal Products Marketing Laboratory does not have poultry processing facilities or broilers so this inter-Area cooperative activity provided an opportunity to collect needed data at minimum cost.

EMPLOYEE ACTIVITIES

H. E. Heggstad, Plant Stress Laboratory, PPHI, was an invited participant in an ERDA-sponsored workshop at Aspen, Colorado, September 11 through 13. The workshop was concerned with quantifying environmental impacts in the United States from energy-related activities. The information was needed to guide policy on development of the various sources of energy.

A. B. Borkovec, Chief, Insect Chemosterilants Laboratory, AEQI, presented an invitational lecture on "Modern Approaches to Pest Control," at the annual meeting of the Czechoslovak Society of Arts and Sciences in America, on October 8, 1977, at the University of Ottawa, Canada. Dr. Borkovec is the vice-president of the Society.

A. B. Borkovec, Chief, Insect Chemosterilants Laboratory, AEQI, reviewed the research on boll weevil chemosterilization at a meeting of ARS boll weevil research workers in Memphis, Tennessee, on October 13. A 3-year Trial Boll Weevil Eradication Program has recently been approved by the U.S. Congress and the chemosterilization procedure is being considered for the final step in the integrated control program. Two AEQI Laboratories--Insect Chemosterilants, and Biological Evaluation of Chemicals--are cooperating on this research with the ARS Boll Weevil Research Laboratory, State College, Mississippi.

SCHEDULING APPOINTMENTS FOR FOREIGN VISITORS AT BARC

Visitors whose first contact with ARS is through:

1. BARC Director's Office or BARC Visitor Unit--Visitor Unit will make appointments with BARC staff and arrange tours to provide an overview of the Center. (Visitor Unit will notify IPD of such arrangements, if appropriate.) Visitors will be referred to IPD if they require, or request, an itinerary that includes visits in addition to BARC staff.
2. BARC Scientific Staff--Individual foreign scientists may arrange visits with BARC staff and request assistance from the Visitor Unit. The Visitor Unit, if notified, will inform IPD of arrangements.
3. IPD--IPD staff will request that the BARC Visitor Unit arrange appointments with BARC staff. Tours for an overview of BARC will be arranged with the Visitor Unit if this is what is desired by the visitor. Scheduling of tours will be based on availability of staff within the Visitor Unit. Visitors will be advised by IPD of any quarantine regulations at BARC, prior to arranging visits, so that visitors are aware in advance of any limitations that may be imposed within BARC. The Visitor Unit will be responsible for notifying IPD of changes in quarantine regulations.

Adhering to above procedures, and continuing cooperation between IPD and BARC, should enable ARS to furnish maximum assistance to foreign visitors.

TELEPHONE SERVICE

Bill Milstead, General Services Branch, NER, extension 42164, should receive a written request for changes in telephone service.

For the following reasons, 10 days are needed to implement a request:

1. The order has to be called in to the C&P Telephone Company located in Wheaton.
2. The Telephone Company writes the order and submits it to GSA, in Washington, D.C., for approval.
3. It goes into the GSA computer, then it is transmitted to the C&P Telephone Company computer in Washington, D.C.
4. The C&P Telephone Company submits the order to the C&P repairman located at the NASA-Goddard Space Flight Center.
5. After repairman receives order, work is scheduled to be done.

DEATH OF INTERNATIONALLY KNOWN BARC SCIENTIST

John V. Lagerwerff, Research Soil Scientist, Agricultural Chemicals Management Laboratory, AEQI, died of cancer at Prince George's County Hospital, on September 12, 1977.

He was born at Ede, in the Netherlands, on January 2, 1921. He received his early education at The Hague, and entered the State Agricultural University of the Netherlands in 1940, receiving his B.S. degree in Tropical Soils in 1945, and his M.S. degree in Tropical Crops and Soils in 1947. During the wartime occupation of Holland, he played a significant role as a leader in the Student Resistance and was an officer in the Dutch Underground Armed Forces.

In addition to his outstanding scientific career, he was deeply concerned with many aspects of the social problems of our times. He had a notable ability to communicate with younger adults and had much success in assisting them with personal and social difficulties, drawing upon his experiences in the troubled times during his youth in Holland.

HONORS AND AWARDS

Outside Awards

Arlen D. Draper, and Donald H. Scott, Fruit Laboratory, PGGI, will receive the George M. Darrow Award at the 74th Annual Meeting of the American Society for Horticultural Science for their paper entitled "Reaction of Strawberry Seedlings Inoculated with Race Composites of Phytophthora fragariae Hickman."

H. Marc Cathey, Chief, Florist and Nursery Crops Laboratory, PGGI, was inducted into the Hall of Fame of the Society of American Florists for his contribution to the Society and to Horticulture in America.

Cash Awards

R. J. Unger, BARC Safety Manager, Division of Operations, for initiating a Standing Order Chemical Delivery System by which a scientist reduces the amount of storage space, improves housekeeping, reduces the fire hazard, and greatly reduces the amount of chemicals becoming obsolete.

VISITORS

Australia--The Animal Parasitology Institute was visited September 8 and 9, by Professor John F. A. Sprent, Department of Parasitology, University of Brisbane, Australia. He presented a seminar on "Geographic Distribution and Host Relationships of Ascaridoid Nematodes," and discussed cooperative studies with J. R. Lichtenfels, Parasite Classification and Distribution Unit.

England--Dr. Robert B. Leslie, from Unilever Research Laboratory, Colworth House, Bedford, England, visited the Meat Science Research Laboratory, AMRI, on October 6, 1977. Dr. Leslie visited the laboratory to discuss meat technology research being conducted at BARC and at Unilever. He was particularly interested in research on the addition of soy protein to ground meat, procedures for sensory evaluation, and meat quality loss due to animal stress.

Maryland--The Parasite Classification and Distribution Unit, API, was visited by Professor Leo A. Jachowski, Jr., and his graduate students from the University of Maryland's Zoology Department, on September 23. They were introduced to the services and activities of the Parasite Classification and Distribution Unit's National Parasite Collection and the Index-Catalogue of Medical and Veterinary Zoology.

Russia--On September 27, 1977, the staff of the Vegetable Laboratory, PGGI, was visited by N. A. Chitanava, Minister of Agriculture, Georgian SSR; I. N. Soldatov, Head of the Agricultural Production Administration, Restov Oblast Executive Committee; N. S. Goncharouk, Director of the Scientific Research Institute for Vegetable Farming, RSFSR Ministry of Agriculture; A. S. Il'insky, Interpreter; and I. A. Gavva, Agricultural Counselor, Embassy of the Union of Soviet Socialist Republic. The topic under discussion was "Vegetable Improvement Through Breeding and Production Practices, Including Vegetable Insect Pest Management."

South America--E. J. Koch and Bernie Weinland, Biometrical Services Staff, were visited on August 31 by Miss Marta Zanelli, of I.N.T.A., from Buenos Aires, Argentina; Joao Gilberto Correa da Silva, from the Department of Quantitative Methods of Brazil; Gaston Mendoza, of the Biometrics Unit, CIAT, Colombia; Manuel Cargenas, of Fairfax, Virginia; and Alvaro Velazquez-Cock, of Colombia. They were most interested in Biometrical and Data Systems Services, and they also received a tour of BARC.

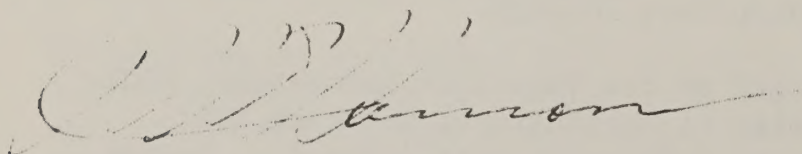
Sweden--Ms. Lena Skarby, from the Swedish Water and Air Pollution Research Laboratory, Gothenburg, Sweden, visited with H. E. Heggstad, Plant Stress Laboratory, PPHI, on August 31. Last summer she used tobacco indicator plants to assess ozone injury in the southwestern part of the country. She will spend 6 months in graduate school at Pennsylvania State University before returning.

HONOR AWARDS NOMINATIONS

The time has come again for submission of USDA Honor Awards Nominations. Due to the time involved in the processing of the nominations, NER is asking that they be submitted no later than November 4, 1977. Prepare nominations in double-spaced draft form and forward to Janie E. Carr, Room 123, Building 003, Beltsville, Maryland 20705, through the Center Director's Office. After editing by the Regional Information Officer, nominations will be returned for final preparation. Forward original and 16 copies with appropriate attachments to Janie E. Carr no later than December 7, 1977. (Plus one copy for E. E. Finney, Jr., Assistant Director, BARC.) For additional information, please contact Janie E. Carr on extension 42762.

SURPLUS PROPERTY

Contact R. S. Rew, Ruminant Helminthic Diseases Laboratory, API, Room 2, Building 1040, BARC-East, extension 42195, for the following: 1 Spectrophotometer, Beckman, Model DU; 1 Spectrophotometer, Coleman.



A. A. Hanson, Director
Beltsville Agricultural Research Center



OF UNITED STATES
DEPARTMENT OF
AGRICULTURE

BELTSVILLE AGRICULTURAL RESEARCH CENTER
BELTSVILLE, MARYLAND 20705

NOTES FROM THE DIRECTOR

No. 95

November 28, 1977

BARC EEO PROGRAM

The Second Annual BARC-EEO Program was held on Tuesday, October 4, 1977. The First Annual BARC-EEO Program was held October 18, 1976. The continuing overall theme has been "ENCOURAGE POSITIVE CHANGE". Last year's program addressed itself to "Adjusting Attitudes". This year's program featured "EEO From the Departmental Perspective", presented by Mr. J. Fred King, Assistant Secretary for Administration and Director, USDA EEO Program. We appreciate the support received from the NER EEO Program Coordinator and the NER FEW Program Coordinator in organizing this program. The following quotations from Mr. King's talk will be of interest to all employees:

"Inherent in the Civil Service Act of 1883 is the concept that employment within the Federal Service be contingent upon fitness alone. Over the years many violations of this concept have become evident. Several Executive Orders and two Public Laws later, the merit concept is finally attaining the status intended. However, the passage of legislation prohibiting discrimination practices has not, of itself, resulted in major strides forward in hiring members of minority groups and women. Accordingly, the Federal Government is committed to a strong Affirmative Action Program which would actively seek out, hire, train, promote, and reward well qualified minority individuals and women. In my judgment, this program ranks in importance with, and is an integral part of, our primary mission.

"Secretary Bergland is personally committed to the principles of EEO and a meaningful Affirmative Action Plan -- he expects the same commitment from all our employees. In the Secretary's words, he 'will hold managers and supervisors personally accountable for implementing the Department's EEO Program,' and he means just that. Our Department has a long way to go before realizing its goal of equal opportunity for all. To reach that goal will take the commitment and **perseverance** of each employee. At the end of 1976, USDA employed 80,508 permanent full-time employees. Of that total 8,720 (10.9%) were minorities and 19,214 (23.9%) were women. By contrast, the most recent government-wide statistics show 21.2 percent of the Federal work force were minorities and 42.1 percent were women. The figures speak for themselves."

EMPLOYEE ACTIVITIES

The Food Distribution Industry's Productivity Conference held October 30-November 2 in Orlando, Florida, was attended by over 800 middle management executives from wholesale grocery firms. The program included concurrent

workshops and over 80 speakers. Representing the Food Distribution Research Laboratory, AMRI, were J. J. Karitas who served as workshop moderator on Clerical Procedures and Receiving Operations and J. L. Runyan who moderated a workshop on Frozen Food Handling. The conference is sponsored by the National American Wholesale Grocer's Association and much planning and coordination is required to present a program of this magnitude.

Two USDA taxonomists from the Systematic Entomology Laboratory, IIBIII, J. M. Kingsolver and R. Gordon, visited the Beneficial Insects Research Laboratory, Newark, Delaware, on September 9, to review their large scarab beetle collection. Since the scarab section of BIRL's collection has not been actively used there for many years, and many of the species are not present in the National Collection, arrangements were made between BIRL Research Leader W. H. Day and Beneficial Insects Introduction and Insect Identification Institute Chairman L. V. Knutson to transfer these insects to Washington for extended study. Any scarabs not needed to fill gaps in the National Collection will be returned to BIRL.

On October 19, W. H. Day, R. C. Hedlund, and L. R. Ertle, accompanied by J. R. Coulson, Chief, Beneficial Insect Introduction Laboratory, IIBIII, attended the 1977 Gypsy Moth Biocontrol Review Conference at Trenton, New Jersey. Participants discussed work conducted in 1977, describing work planned for 1978, and considered procedures for improving the overall effectiveness of the program.

Members of the "National Pasture and Range Improvement Task Force" visited BARC on November 4, 1977. A. A. Hanson, Director, gave an overview of forage and forage-related research at BARC. Current research on energy metabolism, noncompetitive feeds and tall fescue grazing was presented by P. Moe, D. Dinius, W. Wheeler and J. Bond, Ruminant Nutrition Laboratory, NI, and J. Powell, Chief, Field Crops Laboratory, PGGI.

G. C. Papavizas, N. R. O'Neill, and J. A. Lewis of the Soilborne Diseases Laboratory, PPI, recently attended the Northeast Division meetings of the American Phytopathological Society in Somerset, New Jersey. Dr. O'Neill presented a paper entitled "Penetration of seeds by systemic fungicides applied with acetone."

J. A. Lewis and J. C. Locke of the Soilborne Diseases Laboratory, PPI, attended the annual meeting of North Central Regional project "Development of root disease control technology with emphasis on biological control in corn and soybean and other crops with common pathogens". Research papers on the "Effect of municipal compost on soilborne plant pathogens", "Integrated control of Rhizoctonia solani", and "Factors affecting germination of sclerotia of Macrophomina phaseolina" were given. The meeting was held at the University of Nebraska, Lincoln, on November 7-9, 1977.

D. K. Hayes, Chief, Chemical and Biophysical Control Laboratory, AEQI, has been appointed Advisor to the Quarantine Committee of the Armed Forces Pest Control Board (AFPCB).

G. J. Galletta, Fruit Laboratory, PGGI, was elected Chairman Viticulture and Small Fruit Working Group of the American Society of Horticultural Science.

R. H. Zimmerman, Fruit Laboratory, PGGI, was elected Chairman, Tissue Culture and Cellular Manipulation Working Group of the American Society of Horticultural Science.

SCIENTIST AT BARC ON SABBATICAL

Dr. Herbert L. Portz, Professor of Turfgrass Management, Department of Plant Soil Science at Southern Illinois University at Carbondale, was on sabbatical for one month at the Field Crops Laboratory, PGGI. Dr. Portz is initiating a project to determine the effects of various chemicals on winter hardiness of warm-season grasses used for turf in the transition zone of the U.S.

BARC COMMITTEES

The BARC Committee for Honoring Eminent Scientists and the BARC Committee for Library Liaison were discontinued.

An ad hoc Committee for Plant Sample Drying Facilities at BARC-West, was appointed November 3, 1977. J. J. Meisinger, Chairperson and J. B. Powell, G. E. Carlson, and H. K. Goering, members.

The BARC-EEO Committee has added members representing special organizations as follows: M. E. Vernon, Agricultural Chemicals Management Laboratory, AEQI, representing the Agricultural Task Force Against Racial Discrimination (ATFARD); F. W. Snyder, Light and Plant Growth Laboratory, PPHI, representing the Association of Supervisors and Managers (ASM); E. Fields, Biologically Active Natural Products Laboratory, AEQI, representing the Beltsville Chapter, Organization of Professional Employees Department of Agriculture (OPEDA); and M. Sloger, Vitamin and Mineral Nutrition Laboratory, NI, representing the Northern Prince George's County Chapter, Federally Employed Women (FEW).

AWARDS

Outside Awards:

M. Faust, Chief, Fruit Laboratory, PGGI, was elected a Fellow of the American Society of Horticultural Science.

Cash Awards:

C. J. Nelson, Non-Ruminant Animal Nutrition Laboratory, NI, for assuming full secretarial duties of the Laboratory while the regular secretary was on maternity leave.

VISITORS

Costa Rica - Dr. Jorge Ramirez, Head of the Department of National and International Projects, San Jose, after attending an OAS meeting in Washington, D. C., visited with W. R. Nickle, Nematology Laboratory, PPI, and S. R. Dutky, Insect Physiology Laboratory, PPI, about biological control of the potato tuber borer. He received two cultures of the DD-136 nematode.

France - Dr. C. Alabouvette of the National Institute for Agricultural Research, Station for Soilborne Pathogen Research visited with the staff of the Soilborne Diseases Laboratory, PPI, on October 12-14. Dr. Alabouvette is concerned with the ecology of pathogenic fusaria in soil and with biological control of soilborne plant pathogens.

Pakistan - Mr. S. Hamid, Commonwealth Institute of Biological Control, Rawalpindi, visited the staffs of the Nematology Laboratory, PPI, and IIBIII for a month of training. Mr. Hamid has a PL-480 project on nematode parasites of pest insects, with W. R. Nickle, Nematology Laboratory, serving as cooperating scientist.

Poland - Dr. Adam Szczygiel, Research Institute of Pomology, Brzens, spent a week in September visiting with W. R. Nickle and other scientists in the Nematology Laboratory, PPI. Dr. Szczygiel has a PL-480 project on plant-parasitic nematodes of strawberries, with Dr. Nickle serving as cooperating scientist. He also visited with M. Faust and J. Galletta, Fruit Laboratory, PGGI.

Peoples Republic of China - A. A. Hanson, Director, BARC, welcomed and presented an overview of BARC research to a delegation from the Peoples Republic of China on November 1. G. White, Chief, Germplasm Resources Laboratory, PGGI; C. B. Shear and H. W. Fogle, Fruit Laboratory, PGGI; B. Bereskin, Non-Ruminant Animal Nutrition Laboratory, NI; J. W. Smith, Chairman, APCI; J. G. Moseman, Chairman, PGGI; A. Stoner, Vegetable Laboratory, PGGI; and K. Norris, Chief, Instrumentation Research Laboratory, AMRI, met with the delegation.

FASEB Fellow - Dr. Kristen McNutt visited BARC on October 27, 1977. He discussed current research with K. K. Stewart, Chief, Nutrient Composition Laboratory, NI; C. E. Bodwell, Protein Nutrition Laboratory, NI; J. T. Judd, Chief, Lipid Nutrition Laboratory, NI; S. Reiser, Chief, Carbohydrate Nutrition Laboratory, NI; and J. C. Smith, Chief, Vitamin and Mineral Nutrition Laboratory, NI.

Sweden - Ms. Karin Sperlingsson, Agronomist from Malmo, Sweden, recently visited the Field Crops Laboratory, PGGI. She was interested in current work on the use of composted sewage sludge in commercial sod production and maintenance of other turfgrass areas.

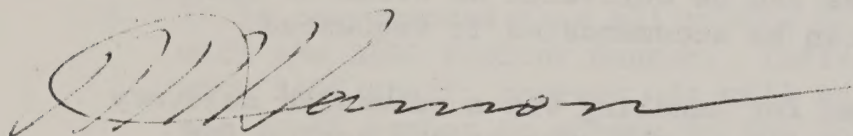
SCHEDULED DELIVERY OF CHEMICALS

I am attaching my memorandum of October 14, 1977, addressed to Institute Chairmen and Laboratory Chiefs outlining opportunities to arrange for the scheduled delivery of chemicals. This is an important step in reducing chemical storage problems at the Center and the considerable cost involved in disposing of excess chemicals.

Many laboratories follow the practice of purchasing large quantities of chemicals with yearend funds. You are urged to discontinue this practice. If advised, the Director's Office can obligate discretionary yearend funds and return them to the originating Laboratory at the beginning of the next fiscal year.

1978 COMBINED FEDERAL CAMPAIGN

I want to personally thank you for supporting the 1978 Combined Federal Campaign. We will advise you of our final figure after the computations are released.



A. A. Hanson, Director
Beltsville Agricultural Research Center



OF UNITED STATES
DEPARTMENT OF
AGRICULTURE

BELTSVILLE AGRICULTURAL RESEARCH CENTER
BELTSVILLE, MARYLAND 20705

October 14, 1977

Subject: Scheduled Delivery of Chemicals

To: Institute Chairmen and Laboratory Chiefs, BARC

Storage of hazardous chemicals in laboratories and in poorly organized storage areas constitute serious problems. The supply of hazardous chemicals in laboratories should be limited to the maximum amount that can be utilized within 30 days. In some situations, a 30-day supply might exceed 20 gallons of an extremely hazardous chemical. This is too much to store in a laboratory if we are to minimize fire and health exposure in the event of an accident. Thirty-day working amounts of hazardous chemicals should be stored in flammable storage cabinets. In addition, the storage of excessive amounts of chemicals in laboratories reduces space available for equipment and contributes to overcrowding.

Major chemical companies that service BARC have agreed to furnish hazardous chemicals via a scheduled delivery system. Ordering and delivery information should now be indicated on Form AD-700, Requisition for Supplies, Equipment, or Services. Up to a year's supply of chemicals can be requisitioned at one time with delivery staggered to suit individual needs. Chemicals and supplies can be delivered as often as weekly. A guarantee of the same batch can be accommodated if requested.

If requirements are identified for handling via a scheduled delivery system, NER Procurement will initiate the appropriate action for arranging same with applicable contractor. An accurate estimate of needs and corresponding delivery schedule must be furnished to NER Procurement. Requests for increases or decreases to quantity or changes to delivery schedule should be kept to a minimum. Ms. Hallean Lane, Supervisor of the BARC Small Order Buying Group, will be responsible for handling consolidated requirements.

To alleviate chemical storage problems at the Center, all personnel are requested to immediately submit AD-700's for hazardous chemicals to be delivered via the scheduled order method.

We are committed to reducing hazardous working conditions, accidents and injuries. Safety goals can be achieved when all employees take a positive attitude to new initiatives such as this new approach to chemical deliveries and storage.

A. A. Hanson, Director
Beltsville Agricultural Research Center



OF UNITED STATES
DEPARTMENT OF
AGRICULTURE

BELTSVILLE AGRICULTURAL RESEARCH CENTER
BELTSVILLE, MARYLAND 20705

December 12, 1977

Subject: Quarantine Regulations

To: All Employees
Beltsville Agricultural Research Center

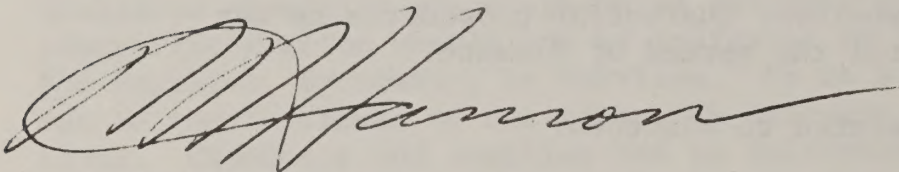
The following quarantine regulations shall be observed until further notice by all BARC employees.

1. The Beltsville Agricultural Research Center (BARC), with the exception of the Animal Parasitology Institute (API), will be considered as a unit. Employees will not be required to take special precautions in moving from unit to unit.
2. In the event of a disease outbreak, the Veterinary Medical Officer will initiate whatever quarantine procedures he may deem necessary to control the spread of disease.
3. Security measures as related to visitors:
 - A. It is recommended that all visits be arranged in advance with the BARC Visitor Center. Individuals may arrange visits with BARC staff; however, it will be the responsibility of the staff member to adhere to the following regulations and make certain his visitors are properly attired when visiting animal facilities.
 - B. Foreign Visitors:
 - a. Foreign visitors shall not have contact with animals or animal pathogens for at least seven (7) days prior to contact with BARC animals. This includes any visits into barns or other animal enclosures.
 - b. All clothing worn during contact with BARC animals should not have been worn during contact with animals or animal pathogens at other facilities, foreign or domestic.
 - c. When entering animal facilities or enclosures used by animals, all foreign visitors shall wear rubber boots and disposable laboratory coats.

C. Domestic Visitors:

No special precautions will be required for domestic visitors not entering animal areas or facilities. All domestic visitors entering barns or areas used by animals are required to wear rubber boots and disposable laboratory coats.

4. BARC employees who have any contact with farm animals off the center shall be required to wear different clothing and footwear when working within animal barns, sheds, or other enclosures on the center. Conversely, clothing and footwear worn during contact with BARC animals shall not be worn when visiting private or other Government farms. No employee of BARC shall bring animals of any species onto the center.
5. All livestock purchased for research purposes shall be maintained in a quarantine area for 30 days. During this period, the only persons authorized to have contact with these animals are the assigned animal caretakers and members of the Veterinary Services Unit. Release from quarantine shall be by order of the Veterinary Medical Officer.

A handwritten signature in dark ink, appearing to read 'A. A. Hanson', with a long, sweeping horizontal stroke extending to the right.

A. A. Hanson, Director
Beltsville Agricultural Research Center